

**ISLAMIC PRINCIPLES AND THE MODERN HOUSING OF JEDDAH**

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بسم الله الرحمن الرحيم  
الحمد لله رب العالمين  
والصلوة والسلام على خاتم الأنبياء  
 والمرسلين.

*In the Name of Allah,  
the Compassionate, the Merciful,  
Praise to be Allah, Lord of the Universe,  
and Peace and Prayers be upon  
His Final Prophet and Messenger.*



# **DECLARATION**

**This thesis has been composed by myself and is my original work.**

**HISHAM ALI MORTADA**

*TO BAYAN*

## A B S T R A C T

The thesis describes an investigation of the hypothesis that a number of characteristics of planning and design in Jeddah's recent villa and apartment developments violate established sharī'ah principles and support socio-cultural consequences which conflict with Islamic tradition. To test this hypothesis, the principles established by the tradition of Islam to govern the social and physical environments of Muslims are analysed. The upholding or violation of these principles is then examined against the planning and design characteristics at the various scales -urban, neighbourhood, and house- of Jeddah's modern housing. The results support the hypothesis.

In the course of the study, a set of matrices is constructed to link the degree of violation of principles at the various scales to the degree of obligation associated with each principle. These matrices are based on an analysis of traditional Islamic principles derived from basic sharī'ah sources, such as the Qur'an and sunnah, and of the factors observed to violate them derived from the general conditions of a recent housing in Jeddah. Their validity as an operational tool for evaluating housing environments is tested for using two case studies of existing housing schemes. The outcome of these tests supports the validity of the matrices and their potential usefulness as an operational tool. Suggestions are made about the development, simplification, and further testing of the matrices to enhance their practicality as a general tool for the evaluation of existing and proposed housing.

In order to place the research in context, some background is given on sharī'ah and its sources. The stand of Islam on modernity is explored and the process of the Saudi modernisation that has led to the emergence of Jeddah's new housing forms is described.

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## SYSTEM OF TRANSLITERATION

The system of transliteration from Arabic used in this thesis is the one described in Bulletin 49, (Nov. 1958) issued by the Cataloging service of the Library of Congress.

English quotations are left the way they are even if they do not follow this system.

Arabic Letter	Transliteration	Short Vowel
ء	'	<u>      </u> a
ب	b	
ت	t	<u>      </u> u
ث	th	<u>      </u> i
ج	j	
ح	h	Long Vowels
خ	kh	' <u>      </u> ā
د	d	و' <u>      </u> ū
ذ	dh	
ر	r	سي <u>      </u> ī
ز	z	
س	s	
ش	sh	و' <u>      </u> aw
ص	ṣ	ي' <u>      </u> ay
ض	ḍ	ي' <u>      </u> iyy
ط	ṭ	
ظ	ẓ	و' <u>      </u> uww
ع	'	
غ	gh	
ف	f	
ق	q	
ك	k	
ل	l	
م	m	
ن	n	
و	w	
ه	h	
ة	t	
ي	y	

## INTRODUCTION

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## INTRODUCTION

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### 0.1 PROBLEM STATEMENT

The tradition of Islam embodies many principles of social organisation and behaviour. These principles have been established by this tradition to make the life of believers correspond to its objectives and message. Following these principles, as early Muslim societies did, creates harmonious social and physical environments, but to ignore them would violate the tradition itself and adversely affect the social and physical conditions of Muslim life. This seems to be the case in the contemporary Muslim environment, where non-traditional values and regulations are introduced and followed under the banner of "modernity".

Jeddah is an important example of the contemporary Muslim environment. Due to many factors, mainly related to the rapid modernisation process of Saudi Arabia, there have been dramatic changes in the built environment and society of this city. One of the most visible and far-reaching changes has been the introduction of new housing forms whose planning and design are based neither on Islamic precedent nor on traditional patterns. As a result, these forms have led to violation of the traditional principles as well as inconveniencing their inhabitants. They have also supported new socio-cultural norms which have come about due to modernisation and are in contradiction of traditional principles.

The matter of violations of traditional principles by the planning and design of Jeddah's modern housing appears to be serious and thus requires investigation. This study sets out to examine these violations in the hope that it will contribute to the knowledge of both the principles that Islam has established for management of the built

environment of Muslims and the planning and design factors that violate them. It is hoped that this study will assist architects, planners and decision makers in the provision of appropriate solutions that address the traditional principles and equally satisfy the requirements of modern life.

Unlike many previous studies, this thesis will help towards understanding Islam as a tradition of values and not one of rules. Many studies have failed to make clear the social dimensions of this tradition as they tended to list only the traditional regulations. They do not explain, for example, why and how Islam has required social interaction or privacy. Readers of some of these researches would come to the conclusion that Islam is no more than a legislative body imposing regulations upon people and their built environment. As far as this thesis is concerned, Islam is a way of life with social ideals. The pursuit of these ideals will be reflected in the formation of the built environment. And if there are ordinances, they are established only to support these ideals. This thesis, therefore, goes beyond the rules that Islam has set up by exploring and explaining the reasons behind them. Other studies have presented a descriptive account of the physical characteristics of Jeddah's modern housing. Some of them concentrate on explaining the chronological development of this environment and describe the planning and design regulations applied to it. This limited concern ignores the dilemma produced by the violation of traditional principles which some studies have occasionally and sometimes superficially discussed without in-depth analysis. The present research investigates these planning and design regulations but does so from a socio-cultural point of view.

Socio-cultural and behavioural aspects in planning and design in general have been of great interest to the author since his early study of architecture. However, he does not claim that he has such an intimate knowledge of sharī'ah, the legal system of Islam, sufficient to cover all the issues relevant to the topic of this research. In fact, Islam has warned those who are not completely conversant with sharī'ah against producing a fatwā or religious opinion. In this study, the author has not attempted to make any

ijtihād (scholarly religious interpretation resulting in sharīʿah directions), but only to illustrate the given directions of sharīʿah in environmental or design terms making its scope as wide and as deep as possible. The study relies heavily on what has been specified in the two basic sharīʿah's sources: Qur'an and the Prophet sunnah. Great care is taken to differentiate between ordinances intended to be valid for all times and circumstances, and ordinances which were obviously meant to meet the needs of a particular occasion or time.

## **0.2 OBJECTIVES OF THE STUDY**

The purpose of this study is to investigate and understand the nature of the violations of traditional principles of Islam in the modern housing environment of Jeddah. The basic hypothesis to be tested is that modern housing patterns of apartments and villas embody planning and design characteristics which either themselves violate, or lead to the violation of, traditional Islamic principles and which support the negative social consequences of modernisation. The overall objective includes the following aims:

1. To explore some of the essential principles which the tradition of Islam has set up for Muslim society and its living environment.
2. To explain and interpret the urban planning and architectural concepts and characteristics of the new housing types of Jeddah.
3. To find out how and to what extent these concepts and characteristics violate the traditional principles of Islam.
4. To create a better framework for understanding the socio-cultural aspects and impacts of the planning and design characteristics of Jeddah's new housing types.
5. To explore some of the main forces that influence the planning and design of these types.

### **0.3 BOUNDARIES OF THE STUDY**

The principles that Islam has set up for the life and housing environment of Muslims are treated as criteria against which the planning and design of Jeddah's modern housing are to be tested. Jeddah contains different styles of modern housing inhabited by various income groups, but the study will concentrate on the two dominant housing forms; villas and apartments, which are occupied by middle-income Saudis.

It was not intended to establish planning or design guidelines that could prevent or reduce the violation of principles in the housing environment of Jeddah. However, the criteria established in the thesis for judging this environment would be helpful in creating planning and design policies aimed at reducing violations. The thesis ends with matrices that are designed to assist in the evaluation of an existing or proposed housing environment in response to Islamic principles. These matrices have the potential to be developed into a practical evaluative tool.

### **0.4 METHODOLOGY OF THE STUDY**

This study has been conducted in three stages. The first is an analytical study of the Islamic social and physical principles relevant to the nature of the problem. This establishes the criteria against which the planning and design of Jeddah's new housing and resulted social consequences are judged. The second stage consists of a descriptive account of the urban planning and architectural characteristics of Jeddah's new housing forms. This also explains the parameters that have led to the creation and dominance of these forms. The final stage examines how the planning and design features of the housing forms violate the principles of the criteria established in the first stage.

In the second and third stages, photographs and drawings are used as evidence to support the arguments and to illustrate violations. Most of the photographs were taken in two trips to Jeddah in 1989 and 1991. During these trips, valuable data in the form of reports, maps and drawings were collected mainly from the Municipality of Jeddah, which officially granted the author access to these documents. Also in these trips, the



author made site observations to widen his understanding of the nature of the problem. Some relevant information was obtained from a few informal interviews conducted both with inhabitants of new dwellings and officials of the municipality. The interviews helped to provide more background on residents' impressions of their environment.

## **0.5 ORGANISATION OF THE THESIS**

The methodology explained above has determined the organisation of the thesis. Thus, the first part deals with establishing and discussing the criteria extracted from traditional sources and used in determining a satisfactory environment for Muslim housing. The second presents an account of modern housing forms as well as evidence of the truth of the previously stated hypothesis. The third part evaluates the degree of inconsistency of these housing forms with the criteria.

The work is presented in ten chapters. Chapter One concentrates on a discussion of the nature and sources of Islamic law, shari'ah, on which the traditional social and physical principles have been established. In Chapter Two, the social principles that Islam have set up in its shari'ah sources are investigated. These principles are explained in four sections, each of which represents a social scale: society, neighbourhood, family and the individual.

In Chapter Three, the traditional Islamic principles concerning the physical environment of Muslims are analysed. The analysis focuses on the social quality of these principles and emphasises that they are a source of enhancement of the social principles. This is again presented in four sections in a socio-spatial hierarchy: natural environment, urban environment or city, neighbourhood, and house. In addition to the main sources of shari'ah such as Qur'an and sunnah, urban and architectural examples from the traditional Muslim environment are used. The reason for using such examples is that this environment was shaped by the beliefs and actions of the inhabitants who adhered to a traditional Islamic way of life. This environment was developed during the period of the Islamic state, when Islamic shari'ah was almost the only reference for all

aspects of life. Moreover, it also demonstrated the ruling by respected jurists on many cases of social values relevant to the built environment derived from sharī'ah.

Chapter Four concentrates on the Islamic points of view regarding development and adoption of ideas from non-Muslim contexts, and attempts to clarify the position of Islam on the controversial issue of modernisation or westernization. In Chapter Five, the variables and consequences of the modernisation of Jeddah are discussed. This modernisation, which has been characterised by rapid economic and urban development as well as changes at various levels of society, is responsible for the introduction and dominance of the new housing forms of apartments and villas.

Chapter Six provides general insight into the urban and architectural characteristics of villas and apartments. The urban form and components of northern districts in Jeddah where most of the villas and apartment buildings exist are described and their internal spatial arrangement and external treatment are explained.

In Chapter Seven, the violation of the traditional social and physical principles of Islam by planning and design factors featured in apartments and villas is examined by applying the criteria established in Chapters Two and Three to the urban, neighbourhood and house scales of apartment and villa environment. Chapter Eight then presents an evaluation of the level of violation of principles by planning and design factors. The analysis is presented in tables and matrices where the degree of obligation of each principle is identified along with the degree of its violation by a factor in each physical scale. The tabular analysis follows a coding system which is intended to make the tables and matrices as simple and self-explanatory as possible. It should be noted, however, that their full use requires reference to Chapters Two and Three as well as Chapter Seven where the principles and the factors are discussed. The codes included in the tables of Chapter Eight make these references straightforward. These tables are also placed in an appendix as fold out tables for use in latter parts of the thesis. This chapter also introduces an attempt to rank the principles and factors and ends with a general examination of the level of responsibility of parties for the violation factors.

Chapter Nine contains a test of the validity of the matrices produced in Chapter Eight to find out if they are sufficiently useful to form the basis of an operational tool for evaluating existing and proposed housings. The test is conducted on two actual case studies of housing: Al-Sahaifa district in Jeddah and Al-Barakah housing project in Mecca.

Chapter Ten presents a summary of the research and discusses its shortcomings. It concludes by suggesting further studies that would contribute to a better understanding of the violation of traditional social and physical principles of Islam by contemporary planning and design of housing and to the development of solutions which would reduce such adverse effects.

# CHAPTER **1**—

## THE TRADITION OF ISLAM AND ITS LAW

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In order to understand the social and physical framework of Islam which embodies criteria for evaluating a Muslim housing environment, it is important to analyse the Islamic legal system. Through its concepts, sources and methods of application, this system, which is called sharīʿah, is the origin of the principles of these frameworks.

### 1.1 THE CONCEPT OF SUBMISSION

Islam is a religion which gives due reference to the material world, as is every traditional religion. In his discussion of the social meanings of Islam, the contemporary Muslim scholar, M. Quraishi, analyses Islam into the following Qur'anic concepts:

- a. God is One, Sovereign, and Law-giver. His laws govern the entire universe, and thus humanity should order itself according with His laws.
- b. There is no compromise; only the individual's deeds will be taken into account before the Divine tribunal in the hereafter.
- c. Mankind is one and so is prophet-hood, because their origin is one.
- d. Oppression is to be fought; it is neither to be befriended nor ignored.<sup>1</sup>

Literally, the Arabic word "Islam" is rooted in the word "silm" or peace. It is commonly understood by Muslims and others to mean submission or total surrender; that is, surrender of the believer to Allah or God and His order. Hence, a Muslim is a person who performs the act of surrender or who gives himself entirely to God alone, to the exclusion of others. Once he has accepted Allah as his only God and Islam as his

only religion, he takes upon himself certain obligations. These obligations must always remain in his consciousness and constant effort should be made in their discharge.

Moreover, Islam combines another meaning: sincere devotion as expressed in the words of the Exalted One: "... And a man belonging entirely to one master" (Qur'an, Su. 39:29).<sup>2</sup> Islam also means that God has no other partner. This requires the total submission of creativity to the service of God. Therefore, the two cardinal meanings of Islam: submission of the whole self to God and the performance of devotional works, should be devoted entirely to God and should conform properly with the Sacred Law.

Islam is based on the concept of tawhīd or "unity", the "unity of God". The modern scholar, Marwan Al-Kaysi, in his analysis of the behavioural system established by Islam, defines tawhīd as "the absolute one-ness and uniqueness of God, and rejects all kinds of polytheism, whether primitive or evolved."<sup>3</sup> In another definition by Sayyid Abūl A'La Mawdudi (d. 1400/1979)<sup>4</sup>, one of the chief leaders of contemporary Muslim scholars, tawhīd means that "only God is the Creator, Sustainer and Master of the universe and of all that exists in it - organic or inorganic. The sovereignty of this kingdom is vested only in Him. He alone has the right to command or forbid. Worship and obedience are due to Him alone, no one and nothing else share it in any way."<sup>5</sup>

## 1.2 ISLAMIC LAW (SHARĪ'AH)

According to Islam, the entire life of a Muslim is subservient to the will of Allah and Muslim society can never break from the law of God. The political order, social organisation, culture, economic policy and legal system of this society must be in tune with the code of guidance revealed by Allah in His Book (Qur'an) and the tradition of the Prophet (sunnah). This code of conduct is known as "sharī'ah".

Sharī'ah establishes standards for the orderly behaviour of all aspects of Muslim life, both individually and collectively. It is translated as Islamic law, denoting both the provisions of law and its subsidiary applied sciences. In his book, Sharī'ah: The Way to Justice, the modern Muslim theorist Khurram Murad states that sharī'ah literally

means "'way to water' -the source of all life- and signifies the way to God, as given by God."<sup>6</sup> This in turn reveals that sharī'ah is, as a technical term, the body or structure of those institutions which God has ordered in full or in essence to guide the individual to God.

It should be understood that sharī'ah is much more than an ordinary legal system or merely a religious doctrine and law. The contemporary Muslim scholar, Hammudāh 'Abd al'Atī, highlights this issue as he defines sharī'ah as,

... simultaneously religious law, natural and positive law. It relates man to God. Its origin is divine, its objective is human. It deals with the present and the hereafter, encompassing all aspects of human action, whether latent or manifest, open or hidden. It is at once universal and particular, absolute and relative, general and specific, strict and flexible. It tempers formal justice with equity, guarantees liberty, encourages excellence and fights abuse.<sup>7</sup>

Sharī'ah prescribes directives for the regulation of the Muslim individual as well as society. These directives inspire various human activities such as religious ritual, personal behaviour, morality, habits, family relationships, social and economic affairs, administration, the rights and duties of citizens, the judicial system, the laws of war and peace and international relations, etc. About these directives, Mawdudi says,

They tell what is good and bad; what is beneficial and useful and what is injurious and harmful and what are the virtues which Muslims have to cultivate and encourage and what are the evils which Muslims have to suppress and guard against, what is the aspiration of Muslims' voluntary, personal and social action and what are its limits and finally, what methods Muslims can adopt to establish a dynamic order of society and what methods Muslims should avoid.<sup>8</sup>

As sharī'ah is the embodiment of the concept of tawḥīd and its every detail springs from it, its structure rests on the concept of sovereignty and compliance with God's will.

Regarding its objectives, sharī'ah answers the needs of human progress and provides the order of human life. It aims to ensure that human life is based on ma' rūfāt (good) and to cleanse it of munkarāt (evils). According to Mawdudi, ma' rūfāt denotes all the qualities that have been accepted as 'good' by the human conscience.<sup>9</sup> On the other hand, munkarāt denotes all those qualities that have been condemned by human nature as 'evil'. In order to establish an entire scheme of life whose aim is to make sure

that good flourishes and evil diminishes, sharī'ah has embraced in its scheme everything that encourages the growth of good and has recommended ways to remove obstacles that might prevent this growth. This gives rise to a subsidiary series of ma'rūfāt consisting of ways of initiating and nurturing the good, and yet another set of ma'rūfāt consisting of prohibitions in relation to those things which act as impediments to good. Likewise, there is a subsidiary list of munkarāt which might initiate or allow the growth of evil.<sup>10</sup>

In his discussion of the points of view of sharī'ah on a number of economic issues, the modern theorist, Mohammed Chapra, mentioned that the great religious scholar Al-Ghazālī (d. 505/1111) defined the objectives of sharī'ah as "the promotion of welfare of people which lies in safeguarding their faith, their life, their intellect, their posterity, their property, and concludes that whatever ensures the safeguard of these five serves public interest and is desirable."<sup>11</sup>

In its objective of facilitating daily life, sharī'ah removes from people harmful, burdensome customs and superstitions. Its principles are designed not only to protect man from munkarāt or evils, but to benefit him in all aspects of life. These benefits apply to everyone, the rich and the poor, the rulers and the ruled, and the men and the women throughout the world and forever.

### **1.2.1 Basic Sources of Sharī'ah**

#### **1.2.1.1 The Holy Qur'an**

The Qur'an is the basic source of Islamic teachings and jurisprudence as it is the word of God. It is the scriptural revelation of the will or laws of God. The word 'al-Qur'an' in Arabic literally means "the book to be read". In the Qur'an, God's Message is either informative or prescriptive. The information is about Himself and about His creation (e. g., the affirmation of His Unity and stories containing the Promise and the Threat); the prescriptions take the form of command, prohibition or permission.



At present, the Qur'an appears in the form of a single volume divided into surahs or chapters of varying lengths. The surahs are arranged according to their relative length, the longest at the beginning.

As to the method of understanding the Qur'an and the nature of its subject matter, whatever commands included in the Qur'an are applicable to innumerable human and social conditions with precision and flexibility.

As repeatedly stated in the Qur'an, God, as the law-giver, has made moral exhortation, representing lasting principles by which to distinguish good from evil and right from wrong. Muslims must conduct their affairs by that which God has revealed. Otherwise, they are "wrongdoers", "transgressors" and "disbelievers."

The revelation of the Qur'an to the Prophet in portions helped to encourage and support him in critical times and allowed his companions to learn and recite the Qur'anic chapters and verses. For example, whenever there was an important political, social or religious incident during the life of the Prophet, a Qur'anic sura or verse was revealed. This provided a strong connection between the Qur'an and everyday life and its implementation.

#### **1.2.1.2 The Sunnah**

The sunnah is the tradition of the Prophet Mohammed. It comprises his deeds, words and indirect commandments. In Arabic, sunnah literally means the "method". According to shari'ah, it is what the Prophet Mohammed said and did. The contemporary Muslim scholar, S. Husaini, defines sunnah as "the model pattern of behaviour. It demonstrates how the Prophet's thoughts and deeds were grounded in the eternal verities of the Qur'an as well as in the realities of the social and natural environments in which he lived."<sup>12</sup>

The authority of sunnah as a source of shari'ah springs from the explicit declaration in the Qur'an, which says, "So take what the Messenger assigns to you, and deny yourselves that which he withholds from you" (Qur'an, Su. 59:7).

Primarily, the source of sunnah is the hadith. It is the report of the Prophet's code of conduct, or his actions and sayings to any one of which a particular hadith may refer. In the early days of Islam, the science of hadith was established for the purpose of establishing the correct behaviour a Muslim should practice.

The Qur'an revealed that the Prophet's life consisted of practical examples for guiding Muslims in all aspects of life. It says, "Ye have indeed in the Messenger of Allah a beautiful pattern (of conduct) for any one whose hope is in Allah and the Final Day, and who engages much in the praise of Allah" (Qur'an, Su. 33:21). And, "Those who follow the Messenger, the unlettered Prophet, whom they find mentioned in their own (scriptures)-in the law and the Gospel-for he commends them what is just and forbids them what is evil; he allows them as lawful what is good (and pure) and prohibits them from what is bad (and impure)..." (Qur'an, Su. 7:157). These holy words are an expression of the perfection of the Prophet's mission. This is why the Prophet said "I was sent only to perfect nobility of character."<sup>13</sup>

During the Prophet's time, the obvious way out of dilemmas provided by the need for conforming a Qur'anic doctrine, was to refer to what the Prophet had done in similar circumstances. Thus, the sunnah acquired an authority only a little less than that of the Qur'an itself.

It is stated in the Qur'an that the Prophet was just another human being subject to human limitations with respect to power and knowledge. And obviously he was a part of the social system of his time. Indeed, the Prophet himself said in a hadith quoted by Husaini, "I am but a human being. Only when I order something regarding your religious duties will you have to abide by it. But if I issue an instruction upon my

personal opinion, then it is a mere guess and I am only a human being. Rather, you may better know your worldly affairs."<sup>14</sup>

In making a judgement, according to sharīʿah, the sunnah comes after the Qurʿan. In his discussion of the stand of Islam on some administrative matters, the contemporary Muslim philosopher, Hassn Abū-Rukbah, cited that the Prophet asked Muāth 'Ibn Jable, who was sent by him to Yemen as a ruler: 'How to judge?' Muāth replied, 'by the Holy Qurʿan.' Then the Prophet said: 'If you couldn't?' Muāth said: 'by sunnah ... ' then the Prophet said: 'If you couldn't? I will make "ijtihād" (or "striving hard")'. Then the Prophet said: 'Thank God.'<sup>15</sup>

### 1.2.2 Supplementary Sources: Fiqh

Fiqh is the Arabic term for jurisprudence or the science of Islamic law. Therefore, it does not name the principles of sharīʿah that are to regulate all aspects of life, but is subsidiary to it. Literally fiqh means intelligence or knowledge and in an older terminology of the Arabic language, the word fiqh is applied to the independent practice of all intelligence, the decision of legal points by one's own judgement in the absence or ignorance of tradition bearing on a case in question.

There is a difference between fiqh and sharīʿah. Despite the fact that fiqh is the science of sharīʿah and can occasionally be used with it, the two concepts suggest to the Muslim mind analytically different but closely related things. Fiqh is the outcome of various methods of reasoning. Its rulings are dependent on the social, material and intellectual environment of the age. They recognise and subscribe to the temporal legislation. Hence, sharīʿah is the plain, self-evident (ẓāhir) and unequivocal ordinances of the Qurʿan and sunnah, while fiqh is the human interpretation of sharīʿah.<sup>16</sup> To put it differently, sharīʿah does not discount fiqh, but it is not identical to it. Conversely, fiqh is a human output, the scholastic, systematic attempt to interpret and implement the principles of sharīʿah.

In discussing the different nature of fiqh, ‘Abd al’Atī says,

... those who subscribe to the divine origin and the unchangeable essence of Islamic law seem to mistake the general for the variant, that is, to view the whole legal system of Islam as identical with sharī‘ah in its strict pure sense. Similarly, those who subscribe to the social basis and the human character of Islamic law seem to view the whole system as identical with one part thereof, i. e. fiqh, which, strictly speaking, is human socially grounded.<sup>17</sup>

### 1.2.2.1 Sources of Fiqh

The first two primary sources of fiqh are: the Qur’an (the revealed word of God) and the sunnah (the Prophet's deeds, words and approvals.) As such both the Qur’an and sunnah are supported in the Qur’anic verse: "If ye differ in anything among yourselves, refer it to Allah and His Messenger" (Qur’an, Su. 4:59).

Another primary source is ijmā‘. It is a consensus of the companions or qualified jurists. In Arabic, ijmā‘ means agreement of general consent, and refers to the decision of the community at large. Abū-Rukbah defines ijmā‘ as, "the decision of al-Mujtahideen or those who know better in the community."<sup>18</sup> The principle meaning of ijmā‘ is taken from a Qur’anic verse which says, "If anyone contends with the Messenger even after guidance has been plainly conveyed to him, and follows a path other than that becoming to men of faith, We shall leave him in the path he has chosen, and land him in Hell -what an evil refuge!" (Qur’an, Su. 4:115).

In sunnah there are many ahādith (pl. of ḥadith) confirming the validity of ijmā‘ as a fiqh tool. For example, the Prophet in his statement to Abū-Bakr and ‘Umar, who were to become the first two caliphs after him, said, "if you two agree on a course I shall not dissent from you." Therefore, the four caliphs (known as the Four Rightly Guided Caliphs), who ruled after the death of the Prophet, employed ijmā‘ for legislative and political decision-making.

Ijmā' is a very important Islamic legal principle. In this respect, Husaini says, "without the sanction of ijmā', interpretations of sharī'ah through ijtihād in its various forms would remain "ẓann" or personal conjecture."<sup>19</sup>

Throughout the Islamic history ijmā' has been accepted as the agreement of the acknowledged jurists in a given generation. Once this consensus was reached, it remained for later generations. Accordingly, ijmā' provided and tolerated those variations adopted by the different schools of sharī'ah. The founders of these schools and their scholastic methods in ijmā' are discussed at the end of this chapter.

In his recent research on the Arab Muslim city, Saleh Al-Hathloul assigns an introductory chapter to discussing the Islamic legal system. He states that from its definition and practice, ijmā' has a double function. On the one hand, it is "permissive and inclusive as it existed at that time [the time when ijmā' is ruled]". And on the other, "it is prohibitive and exclusive in that it guarantees the preservation of the principles of the law from that point onwards."<sup>20</sup>

A fourth primary source of fiqh is ijtihād. It means striving hard, and originated from many Qur'anic verses such as, "And those who strive in our (cause)-We will certainly guide them to our paths: for verily Allah is with those who do right" (Qur'an, Su. 29:69). Another verse that recognises ijtihād as the most basic method of understanding sharī'ah says, "If they had only referred it to the Messenger or to those charged with authority among them, the proper investigators would have tested it from them (direct)." (Qur'an, Su. 4:83).

Similarly, the sunnah ruled ijtihād to be a primary source of fiqh. A ḥadīth included in 'Imam Muslim's (d. 262/875) collection of ḥadīths says that the companion 'Amr b. al-ʿĀṣ reported that he heard the Prophet say, "When a judge gives a decision, having tried his best to decide correctly, and is right, there are two rewards for him; and if he gave a judgement after having tried his best (to arrive at a correct decision) but erred, there is [only] one reward for him."<sup>21</sup>

According to Husaini, the application of ijtihād is "to exert with a view to forming an independent judgement on a legal question." He adds, "ijtihād has been described variously as systematic original independent reasoning; interpretation, disciplined striving (to understanding the meaning of the Holy Qur'an and sunnah for a given situation) and more forcefully as the principle of movement in the structure of Islam."<sup>22</sup>

The secondary sources of fiqh provide a subsidiary method to study the causes behind the rules and realise the spirit of sharī'ah. As a method of fiqh, these sources assist in superimposing Islamic values and principles on aspects of culture which God deliberately left outside the direct ordinance of sharī'ah. There are three sources of this method.

The first is former revelations of pre-Qur'anic laws. Islam was not the first tradition. The Holy Qur'an was sent down to confirm what was Islamically acceptable and valid in the previous scriptures, and to improve and reform the laws attributed to the prophets prior to Mohammed in conformity with the message and spirit of the Qur'an. Hence, the laws of the people possessing previously revealed divine books (the tradition of the people before Muslims) are considered valid and applicable to Muslims except those that were abolished or amended by the Qur'an or the sunnah. Indeed, some of the laws and customs attributed to the prophets Moses, Jesus, and others, were used by Prophet Mohammed. As an illustration, the punishment of adultery prescribed in the traditional Jewish law was stoning to death. The Prophet followed this law apparently only until flogging was prescribed in the Qur'an.<sup>23</sup>

Another secondary source of fiqh is various forms of ijtihād known as qiyās, istihsān, and istislah. Qiyās is reasoning by analogy in its widest sense. In Arabic, qiyās literally means measuring or comparing. According to a recent research on the Islamic planning principles by Besim Hakim, qiyās is the use of human reason in the elaboration of law. It was also termed ijtihād and covered a variety of mental processes, ranging from the interpretation of texts to the assessment of the authority of traditions.<sup>24</sup> Thus, qiyās is a form of ijtihād. It is also the methodology by which the principles

established by the Qur'an, sunnah and consensus, are to be extended and applied to the solution of problems not expressly regulated therein. Being the records of divine revelation, the Qur'an and sunnah guarantee the validity of qiyās. In this regard God says, "Verily in these things is an instructive example for those who have vision!" (Qur'an, Su. 24:44). Husaini states that there are two fully recognised forms of qiyās: the deductive qiyās and inductive qiyās. As the most common form, inductive qiyās is based on the physical or natural facts and sociological data. It must be fully developed as a link between objective and subjective deductions from scriptural revelation.<sup>25</sup> As the best approach in management and decision making, qiyās is helpful in dealing with problems not found in Qur'an or sunnah. This was the case during the Islamic state.

Istiḥsān literally means preference, regarding a thing as better or meritable. This source of fiqh was developed by the school of Abū Ḥanīfah (d. 149/767). As a legal concept, istiḥsān originates from the Qur'anic verse: "Those who listen to the word, and follow the best (meaning) in it: those are the ones, whom Allah has guided, and those are the ones endowed with understanding" (Qur'an, Su. 39:18).

About practising istiḥsān, Husaini says,

Application of istiḥsān includes giving juristic performance [or legal validity] to the stronger bases of law over the weaker. Sharī'ah rulings are ranked higher than fiqh rulings. Dictates of purely logical and literal applications of qiyās to some sharī'ah sources could be set aside in favour of the other, and to realise the spirit of sharī'ah on the plea of equity, necessity, public interest and mitigation of hardships.<sup>26</sup>

Istiṣlah or maṣlaḥa is another legal principle and means public interest. It was developed by the school of Anās 'Ibin Mālik (d. 179/795) as a doctrine of equality when Muslim jurists realised that the precise applications of qiyās failed in some cases to attain the overall objectives of sharī'ah. Istiṣlah or maṣlaḥa comes in three forms. The first is al-maṣlaḥa al-mu'tābarah, and it refers to the laws defining the principles which protect people's way of life and property. The second is al-maṣlaḥa al-mulghāh, whose principles demand the obedience to sharī'ah ordinance in order to refrain from illegal things. The third is al-maṣāliḥ (pl. of maṣlaḥa) al-mursalāh, which means the



cases that appear without evidence or proof to consider as valid or reject as invalid.<sup>27</sup> Eventually, maṣlaḥa is called upon when the meaning of the law or the applied rules is in doubt. It gives priority to the public welfare concerning matters on which the law is not specific.

The other forms of ijtihād are sadd al-dharʿa, istiṣḥāb, and ʿufr. Sadd al-dharʿa is the means or instruments by which something can be blocked or prevented. Practically, sadd al-dharʿa aims to prevent or stop any act or thing from becoming a forbidden act or thing. Istiṣḥāb is the presumption of continuity, and ʿufr means customs and usages. In Arabic, ʿufr is used to term an established tradition for how something is to be done. It represents custom as distinct from revealed law, and can also be defined as action or belief in which persons persist with their natural dispositions and agree to accept as right. In a different explanation of ʿufr, Reuben Levy wrote in his analysis of the social structure of Islam,

The unwritten laws of such local custom and practice are known collectively as ʿufr (what is commonly known and accepted) or custom. They have generally been the produce of long-standing convention, either deliberately adopted or the result of unconscious adaptation to circumstances, and they have therefore been followed where practical considerations have been uppermost.<sup>28</sup>

ʿUfr originates from the Prophet's saying, "what Muslims see good, God sees it good as well."<sup>29</sup> It also conveys the implemented rules of the people of a particular time. Yet, according to sharīʿah, these customary rules are to be based on, or connected with, the Islamic principles revealed either in the Qurʿan or sunnah. For example, before Islam privacy was not a major social concern or custom. But the requirement of privacy has been signified later in the Qurʿan and sunnah. Therefore, this pre-Islamic ʿufr became unacceptable as it contradicted an Islamic principle. About this controversy over ʿufr, Levy says,

There have been lacking attempts to regard ʿufr as one of the "roots" of the fiqh, but except in the works of the early Sunni mujtāhids [strivers] the customary law has generally gone unrecognised, for by some fiqhs [fiqh jurists] they were preferred to laws derived by means of qiyās (analogy or reasoning) and where local influences have been strong, custom has frequently been held to be decisive.<sup>30</sup>



The implementation of 'ufr is circumscribed by the rule that as long as the 'ufr does not contradict Islamic principles, it is acceptable.

### 1.2.3 Directions of Shari'ah Ordinances

The shari'ah ordinances or principles come in two forms. The first is concerned with the general ordinances which are fixed or constant and cannot be changed whether in aim or in implementation. These principles are mentioned either in the Qur'an or sunnah. They pertain to halal or permitted and haram or forbidden. And they are not limited to things or objects, but include human actions and behaviour not related to acts of worship, which may be termed 'living habits' or day-to-day affairs.<sup>31</sup> God says "... He (Allah) hath explained to you in detail what is forbidden to you" (Qur'an, Su. 6:119).

The respected shari'ah scholar, 'Ibn Taymiyyah (d. 728/1328), clarified that people's acts are of two types: a) acts of worship, by which their (people's) religion is established, and b) customary practices, which are required for day-to-day living. According to shari'ah, "acts of worship are those acts which have been prescribed by Allah or approved by Him." These acts are religious duties the Muslim must comply with. Meanwhile, "Customary (worldly) activities are acts (e. g., eating, drinking, buying, selling, etc.) concerning people and necessary for daily life. People are free to do what they want as long as they do not conflict with the acts of worship which are commands [or within the concept of halal and haram]." <sup>32</sup>

The ruling of lawful or halal and prohibited or haram is the right of Allah alone. In fact, prohibiting the halal and permitting the haram is similar to committing shirk (ascribing partners or associating others with Allah or denying His Unity). Whatever is conducive to the haram is itself haram. It is a shari'ah principle that if something is prohibited, anything which leads to it is likewise prohibited.

Despite the shari'ah's declaration of what is halal and what is haram, there is a grey area between the clearly halal and the clearly haram. About this matter the modern

scholar Yusuf Al-Qaradawi says in his popular book, The Lawful and the Prohibited in Islam.

Some people may not be able to decide whether a particular matter is permissible or forbidden; such confusion may be due either to doubtful evidence or because of doubt concerning the applicability of the text to the particular circumstance or matter in question. In relation to such matters, Islam considers it an act of piety for the Muslim to avoid doing something ḥarām.<sup>33</sup>

This is similar to what was discussed previously regarding blocking the avenues or sadd al-dhār' which lead to what is ḥarām. The root of this principle is the saying of the Prophet: "The ḥalāl is clear and the ḥarām is clear. Between the two there are doubtful matters concerning which people do not know whether they are ḥalāl or ḥarām. One who avoids them in order to safeguard his religion and his honour is safe, while if someone engages in a part of them he may be doing something ḥarām."<sup>34</sup>

God makes things ḥalāl and ḥarām for a reason, with people's well-being in view. In this respect, Al-Qaradawi states, "Islam prohibits things only because they are impure or harmful. If something is entirely harmful it is ḥarām, and if it is entirely beneficial it is ḥalāl; if the ḥarām of it outweighs its benefit, it is ḥarām, when if its benefit outweighs its harm, while if its benefit outweighs its harm it is ḥalāl."<sup>35</sup> This principle is explained in the Qur'an in relation to wine and gambling: "They ask thee concerning wine and gambling. Say (O Prophet): 'In them is great sin, and some profit, for men; but the sin is greater than the profit' (Qur'an, Su. 2:219). Also, "They ask thee what is lawful to them (as food). Say: lawful unto you are (all) things good and pure... This day are (all) things Good and pure made lawful unto you" (Qur'an, Su. 5:4, 5).

It is not necessary for the Muslim to know exactly what is harmful in what God has prohibited. The harm of the prohibited may be hidden from him but be apparent to someone else, or it may not have been discovered during his life time but may be understood at a later period. Al-Qaradawi exemplifies this matter as saying,

Do we not observe that Allah prohibited the eating of pork without the Muslims being aware of the reason for its prohibition apart from the fact that the pig is a filthy animal? Centuries passed, and then scientific research discovered the presence of parasites and deadly bacteria in its flesh. Yet even if scientific research had

discovered nothing in pork, or if it had discovered much more than this, the Muslim would still continue to believe it to be unclean.<sup>36</sup>

The second form of sharī'ah ordinances concerns those that provide detailed legislation on matters rooted in the basic elements of human nature or human understanding of sharī'ah. This form is fixed in its aim but is more flexible in its implementation. It is rooted in the Qur'anic verse: "... But if one is forced by necessity, without wilful disobedience, nor transgressing due to limits-then is he guiltless. For Allah is Oft-Forgiving Most Merciful" (Qur'an, Su. 2:173). On the basis of this and similar verses, Islamic jurists formulated an important principle, namely, the individual in dire circumstances is permitted to deal with the ḥarām with the stipulation that he is neither craving it nor transgressing. This is interpreted, for example, that he should not desire to relish it nor transgress by eating more than the bare amount needed to satisfy his hunger or save his life. From this stipulation, scholars have derived another principle which stipulates the quantity permitted and is determined by the magnitude of the necessity. According to Al-Qaradawi, the emphasis is that "even though compelled by necessity; a person should not surrender to it or embrace it with eagerness; rather he must live with what is essentially ḥalāl and [vigorously] seek a way to return to it so that he may not become accustomed to the ḥarām or begin enjoying it under the pretext of necessity."<sup>37</sup>

Islam also takes account of the comparative ability of human understanding of what God commands. God does not ask Muslims to perform duties beyond their physical or mental ability. He says, "On no soul doth Allah place a burden greater than it can bear. It gets every good that it earns, and it suffers every ill that it earns" (Qur'an, Su. 2:286). In allowing the consideration of ḥarām under the compulsion of necessity and in requiring obligations within the limits of human ability, Islam is true to its spirit and general principles. This spirit is to make life easy and less oppressive for people. It is highlighted in many of God's sayings, such as, "Allah intends every facility for you; He does not want to put you to difficulties" (Qur'an, Su. 2:185). And, "Allah doth not

wish to place you in a difficulty, but to make you clean, and to complete His favour to you, that ye may be grateful" (Qur'an, Su. 5:6).

#### **1.2.4 The Islamic Schools of Law: the traditional mechanism of fiqh**

During the 'Ummayed period, judges faced a number of problems as a result of the rapid expansion of Muslim territories. As a result, they tended to be somewhat pragmatic in implementing the spirit of the original Islamic laws as defined by the Qur'an. In response to a subsequent demand to re-evaluate the legal practices which had arisen during the 'Ummayed caliphate, efforts were made to set up the basis for fiqh. These efforts, which took place during the eighth century AD, (around the second century AH), were made by researchers who were well informed about shari'ah and termed "'al-'ulamma". Those 'ulamma (pl. of 'alem/scholar) represented an important socio-political institution in Islamic society. They did not have divine power, but their expertise was primarily in jurisprudence based on shari'ah.

The aim of this 'ulamma system was to raise up and maintain a body of scholars and teachers who would safeguard the Islamic principles. An individual was recognised as a member of 'ulamma after acquiring a satisfactory formal training in appropriate educational institution(s) and reaching a high standard of ability and potential in the field of religious knowledge. From this 'ulamma system, several Islamic schools or madhahib (pl. of madhhab/school) arose particularly during the first two hundred years of Islam. The lives of the school founders reflected the historical frame or the era within which their work developed. Each school created its own regional influence.

About the function of these schools along with the system of 'ulamma, W. Montgomery Watt says,

[As shari'ah] is a divinely-given ideal of conduct embracing every aspect of human life, personal, social, political and liturgical, detailed rules have to be elaborated from a few basic principles contained in the Qur'an and in the example of Mohammad. This elaboration is the province of qualified 'ulamma, since even the most autocratic Muslim ruler is not entitled to make laws.<sup>38</sup>

In giving a fatwā, ra'y or a legal opinion, the initial point of the scholars was a review of the various judicial practices in the light of the original objectives of Islam.

Although numerous schools of law arose during Islamic history, only five have survived: the Hanīfī, Mālikī, Shāfi'i, Hānbali and Jāffari schools. The first four schools are Sunni while the fifth is Sh'i'i.

The material for the establishment of the Hanīfī school was gathered by the Persian scholar, Abū Ḥanīfah, who died in 149/767. The Polish orientalist, Bozena Strzyzewska, mentioned in her research on the history of Islamic law that during his lifetime, Abū Ḥanīfah assembled about him a body of followers who were to become the embryo of the earliest rite of Muslim jurisprudence, the Hanīfī School.<sup>39</sup> This school is considered as one of the conservative rites. It is called the school of opinion as it made greater use of individual expert opinion and in the beginning tended towards building a logically perfect system based on pure reason and scholastic subtleties.<sup>40</sup>

The Mālikī school was founded by Imām Mālik 'Ibn Anas, who died in 179/795. It is considered the closest school to the practices of Medina, the Prophet's town. The foundation of these practices was established during the first ten years prior to the Prophet's death in 11. 632 AD. The social framework, attributes, and plans gained during that decade by the first Arab-Islamic community under the leadership and guidance of the Prophet, were considered by many as a model to rival. Flourishing in the ambience of the Prophet's living sunnah in Medina, the Mālikī school emphasised the real and temporal cases against the intents and offers to erect a logical intact system based on plain reason and scholarly subtleties. In other words, the Mālikī school tended to build an abstract thinking of law.<sup>41</sup>

The Al-Shāfi'i school was founded by the teachings of Mohammad 'Ibn Idris Al-Shāfi'i, who died in 204/819. Husaini argues that the Al-Shāfi'i school was an integration, thus a recognition of the Hanīfī and Mālikī schools and did not have its own built-in system. Yet Al-Shāfi'i considered sunnah as the second source of shari'ah

after the Qur'an. Its systematic reasoning and restrictive methodology in explaining the origins of Islamic jurisprudence left their mark on the structure of all classic schools of fiqh. Regardless of its opinion on sunnah, the Al-Shāfi'i school termed sunnah as the divinely inspired behaviour of the Prophet. This seemed slightly different from the early schools, each of whose local tradition was signified by the sunnah. Replacing this concept of sunnah with that of a sunnah rooting from a single source, that is the actions of the Prophet himself, Al-Shāfi'i hoped to exclude a root cause of diversity among different schools and to implant uniformity into the doctrine. Al-Shāfi'i argued that there could be only one authentic Islamic tradition. Its concept formed a subtle synthesis by bringing together seemingly contrary attitudes of the establishment in the early schools and the opposition groups.<sup>42</sup>

In addition, the Al-Shāfi'i school, which dominates the court system of Saudi Arabia, emphasises ijmā' and qiyās as important sources of sharī'ah.

Finally, there is the Al-Hānbalī school, which was founded by Ahmed 'Ibn Ḥābal (d. 241/855). 'Ibn Ḥābal was among the pupils and, in fact, a great supporter of Al-Shāfi'i. His school is mainly to be found in central Arabia and a few locations in the Indian Peninsula.<sup>43</sup>

### 1.3 SUMMARY AND CONCLUSION

Sharī'ah is the Islamic law, which is founded to clarify and save the principles of Islam from human misunderstanding. Through its concepts and sources, sharī'ah aims to provide Muslims with a guide to what Islam allows and disallows. Thus, whenever any matter, including the planning and design of housing, appears to be a source of violation of sharī'ah principles or if there is the least suspicion that this might be the case, it must be investigated according to the various sources and techniques of sharī'ah.

The next chapter discusses the social principles that sharī'ah has set up for Muslims.

## CHAPTER **2**



## THE TRADITIONAL ISLAMIC SOCIAL FRAMEWORK: ITS PRINCIPLES AND DIMENSIONS

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In every society, there is a set of ethics and morals which is clearly expressed in the daily practice of life. Islam is no exception as it includes a social framework with a complete set of principles. Islam is unique in that its social framework is capable of incorporating all races, social strata, and peaceable followers of other religions. It combines religious, political, social, legal and economic aspirations in a unity which illustrates order for all aspects of Muslim life. This framework is governed by the rules and precepts of sharīʿah.

The principles of the Islamic social framework are commitments and responsibilities which Muslims should practise in their lives. In this respect, the Prophet says, "Allah has prescribed certain obligations for you, so do not neglect them; He has defined [or forbidden] certain things so do not do them; and He has kept silent concerning other things out of mercy for you."<sup>1</sup> Concerning the crux of this responsibility, the contemporary Muslim scholar, Hammudāh ‘Abd al‘Atī, in his explanation of the Islamic point of view on creation says,

The fact that God has not made all people by the force of creation identical in their faith, nationality, race, or colour, leaves for man some work to do, some choice to make, something to desire. If God had wanted them identical, He could have created them so, but they would not [then] be held responsible for anything. Instead, God has created diverse people and has offered them the chance to practice in the shaping of history. He has created them differentiated so they might know one another, be free to choose their commitments, and be responsible for their choice. This means that the business of the committed people is unfinished and their responsibility never ceases. This, in turn, gives the committed a sense of continuity, a goal, and a dynamism of motivation.<sup>2</sup>

According to Islam, the principles of its social framework are supposed to be accepted as faith and expressed in action. Representing an integration between faith and action, these principles are intended to make the life of the individual



meaningful. Clearly, there can be no valid faith without some purposeful action to reinforce it, nor can there be any meaningful action of perpetual significance without faith. Clearly too, whenever accompanied, either directly or indirectly, by action, the two are inseparable in Islam as they are in reality. Thus, the essence of these principles is an internal commitment reinforced by an external manifestation.

This chapter investigates the essential social principles that Islam provides for Muslims. Although these principles are so integrated with each other that they are hard to separate one from another, they are discussed below according to four social scales at each of which there are certain principles to implement: society, neighbourhood, family and individual.

## **2.1 SOCIETY: THE CONCEPT OF 'UMMAH**

The foundation of the Muslim society is faith or 'Imān, whose essence is Taw hīd (the belief in the existence and unity of God.) Sayyid Abū A'La Mawdudi (1323/1903-1399/1979), one of the chief leaders of contemporary Islamic theorists, defines this society in his popular book, The Islamic Way of Life, as "a society whose political order, social organisation, culture, economic policy, legal system, international strategy are all in true [and harmony] with the code of guidance revealed by Allah."<sup>3</sup> He elaborates on this definition by maintaining that this society is the result of a deliberate choice, the outcome of a 'contract', which takes place between human beings and their Creator. Those who enter into this contract undertake to recognise God as their Sovereign, His guidance as supreme and His injunctions as absolute law. They also undertake to accept, without question, His word as to what is good or evil, right or wrong, permissible or prohibited.<sup>4</sup>

Islam is a tradition that is oriented toward community. The effect of this orientation is translated in the concept of "'Ummah", with which the Muslim society is identical. This concept is a divine commandment and a definite mission assigned by God who commands Muslims to be a social totality, an 'ummah. This mission is

emphasised throughout the Qur'an. God says, "Let there arise out of you a band of people inviting what is good, enjoining what is right, and forbidding what is wrong: they are the ones to attain felicity" (Qur'an, Su. 3:104.) Also according to the Qur'an, this 'ummah or single nation of Muslims is designated as the best of all nations as long as it prompts good, withstands evil and believes in God. In this regard, God says, "You are the best of peoples, evolved for mankind, enjoining what is right, forbidding what is wrong, and believing in Allah" (Qur'an, Su. 3:110.)

Hamid Rabie claims in his analysis of the contemporary stand of Islam that the sharī'ah's literal definition of "'Ummah" is "a group of people who accept the principles of Islam with coherent and clear, objectivated, symbolic universes embodying Islamic values and rules."<sup>5</sup> Muslims constitute one 'ummah regardless of any racial, social, geographic or other differences. As an 'ummah, Muslims earn distinct honour by identifying themselves with God and dedicating themselves to His service. Speaking to the Muslim 'ummah, God says, "And verily this Brotherhood of yours is a single Brotherhood. And I am your Lord and Cherisher: therefore fear Me (and no other)" (Qur'an, Su. 23:52.)

The commitment to be 'ummah has been strengthened by Islam, which requires the enhancement of the basic social units (i. e. family and neighbourhood.) Ultimately, this creates a sense of solidarity and fidelity in any society that sustains Islam. The Qur'an includes several verses which highlight the importance of social solidarity among Muslims. For example, "And hold fast, all together, by the Rope which Allah (stretches out for you), and be not divided among yourselves; and remember with gratitude Allah's favour on you; for ye were enemies and He joined your hearts in Love, so that by His Grace, ye become brethren" (Qur'an, Su. 3:103.) Therefore, solidarity is identical with 'ummah.

The practice and attainment of solidarity is reflected in Muslims' living together in a society whose members support each other. In this social wholeness and association, the 'ummah gains its solidarity through the happiness and goodness

achieved in life. This was reflected in traditional Muslim society when different tribes and nations were successfully mixed by Islam into one single nation without variance.

The solidarity of the Muslim 'ummah' is collectively achieved when certain social principles and values impose their meanings over the actions of the members of the 'ummah'. Some of these principles which are formed by sharī'ah and should be shared goals of the Muslim community, are to be found in the Islamic rules of strong social interaction and social justice.

### **2.1.1 Strong Social Interaction (S1)\***

Islam recognises that mankind cannot live without social intercourse. Therefore, it values social relationships in order to limit isolation of people from each other, and strongly encourages social life on a wider or communal scale. In this sense, Islam has designated the social relationships between Muslims as "mu'amalat." Interaction, collaboration, showing kindness, benefiting others, and avoiding harming others, are part of the domain of mu'amalat. This domain of interaction is well expressed in the Qur'an (i. e. 3:103) which calls upon Muslims to relate strongly with each other. This relationship which stands above that of blood, is a commitment with fellow Muslims.

As a supreme Islamic requirement, strong social relationship is underlined by the concept of brotherhood which has repeatedly been signified in the Qur'an as a base of the Muslim society's collective actions. Allah proclaims that Muslims are indeed brothers to one another and united through the brotherhood of Islam in addition to their brotherhood in humanity. Commanding Muslims, God says, "Help ye one another in righteousness and piety, but help yet not one another in sin and rancour"

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\* This is a code given to a traditional Islamic principle and appears in the tables included in Chapters 8, 9 as well as Appendix A. It abbreviates the social scale where the principle applies. The codes of the social scale start with "S", neighbourhood with "N", family with "F", and individual with "I".

(Qur'an, Su. 5:2.) He also says, "The Believers are but a single Brotherhood. So make peace and reconciliation between your two (contending) brothers and fear Allah, that ye may receive mercy" (Qur'an, Su. 49:10.)

Also the Prophet emphasises the social quality of brotherhood and considers it as central in Islam. He says, "believers to one another are like the bricks of building, where every brick is supported and strengthened by another."<sup>6</sup> A similar Prophetic saying, included in M. Al-Bukhari's (d. 256/870) collection of ḥadiths, states, "you Muslims are like the body of human being, when part of it suffers, the other parts will share with it the pain and the suffering."<sup>7</sup> This ḥ adith states a socio-religious relational principle attempting to build up a homogeneous society or 'ummah through strong social interaction at all social levels.

In his recent book, The Duties of Brotherhood in Islam, M. Holland mentions that the sharī'ah scholar, Al-Ghazālī (d. 505/1111), confirms that Islamic brotherhood is a contract between people. He defines this contract as,

... a bond between two persons, like the contract of marriage between two persons. For just as it gives rise to certain duties which must be fulfilled when it is entered into, so does the contract of brotherhood confer upon your brother a certain right touching your property, your person, your tongues and your heart, by way of forgiveness, prayer, sincerity, loyalty, relief, and considerateness.<sup>8</sup>

Muslims should always be aware of the strong bond of brotherhood which links one individual to another. This bond requires them to interact with, rather than dissociate from, one another. The Prophet says, "Do not be envious of each other, nor backbite nor hate one another, but become brothers in the service of Allah"<sup>9</sup> In giving this social relationship a sense of practicality, Islam forbids a Muslim to have an estranged relationship with a fellow Muslim. A ḥadith, included in 'Imām Muslim's (d. 262/875) collection of ḥadiths, says, "'Abū 'Ayyūbe 'Al-'Anṣarī reported Allah's Messenger as saying: It is not permissible for a Muslim to have estranged relations with his brother beyond three nights, the one turning one way and the other turning

the other way when they meet; the better of the two is one who is the first to give a greeting."<sup>10</sup>

According to Islam, strong social integration should be supported by showing kind attitude and behaviour towards others. One of the many Qur'anic verses which confirm that kindness should be at the root of social interaction between Muslims says, "And do good to parents, kinfolk, orphans, those in need, neighbours who are near, neighbours who are strangers, the companion by your side, the wayfarer (ye meet) and what your right hands possess" (Qur'an, Su. 4:36.) According to Al-Ghazālī, kindness should be expressed in giving other Muslims priority over private needs, forgiveness of mistakes and failings, loyalty, sincerity and self-sacrifice.<sup>11</sup>

Strong social interaction through close ties and kindness in Muslim society is also expressed in the obligation that calls Muslims to have consideration for each other. Indeed, the Prophet mentions that even planting a tree is highly rewarded by Allah as it benefits other Muslims. 'Iḥsān or giving alms is an example of this obligation. There are many Qur'anic verses and Prophetic ḥadīths praising the social quality of 'iḥsān.<sup>12</sup> 'Iḥsān should not be viewed as a materialistic or a financially oriented obligation. Instead, it is just another of the infinite forms of maintaining strong social ties between Muslims. In fact, as mentioned in several ḥadīths gathered by the sunnah scholar Ahmed b. Ḥānbal (d. 241/855), greeting is a form of 'iḥsān.<sup>13</sup>

Strong social interaction between Muslims should be also maintained by avoiding any action that could harm other Muslims. The Qur'an (e. g., 49:10-12) and sunnah warn against any act that could cause either mental or physical damage to the positive relationships between Muslims. One of the many verses that clarifies the punishment for harming others says, "And those who annoy believing men and women undeservedly, bear (on themselves) a calumny and a glaring sin" (Qur'an, Su. 33:58.)

### 2.1.2 Social Justice (S2)

Social equity is a key feature and a vital manifestation of 'ummah. In Islam, the concept of social justice is absolute and not relative. As a social system, this concept stems from the fact that all human beings are created by one God, equal and in a single comradeship. This is clearly explicit in God's saying: "O mankind! We created you from a single (pair) of a male and a female, and made you into nations and tribes, that ye may know each other (not that ye may despise each other.) Verily the most honoured of you in the sight of Allah is (he who is) the most righteous of you" (Qur'an, Su. 49:13.) Islamic sharī'ah recognised that each Muslim is free of sin or stigmas attached to birth, each has equal opportunities to achieve excellence, and each is equally committed to the society and responsible to God for its success. The Prophet says, "Those who subscribe to our belief and adopt the Islamic way of life have the same rights and the same obligations as we have." He also said, "Listen! You have one God as you have one father ('Adam.) There is no distinction between an Arab and a non-Arab. There is no preference for black over white, or white over black. There is distinction only in submission to Allah. The most virtuous among you is the most honourable in the eyes of Allah."<sup>14</sup> In another hadith, the Prophet says, "there are no genealogies in Islam."<sup>15</sup> This means that there is no value in one's ancestry.

According to sharī'ah, justice is the supreme purpose and ruling spirit of sharī'ah and provides the framework for the entire life of Islam. The paramount purpose for which the Prophets were sent and struggled all their lives was to guide man to achieve justice. God says, "We sent aforetime our messengers with Clear Signs and sent down with them the Book and the Balance (of Right and Wrong), that men may stand forth in justice" (Qur'an, Su. 57:25.) And again, "O ye who believe! stand out firmly for justice, as witnesses to Allah" (Qur'an, Su. 4:135.) Indeed, Islam is identical with justice. This is confirmed in the Qur'an, which says, "Thus have We made of you an



'ummah justly balanced, that ye might be witnesses over the nations" (Qur'an, Su. 2:143.)

The religious brotherhood and uniformity of Muslims' rights and obligations is the foundation of equality in Islamic society. Islam stresses that all members of the society including non-Muslims are equal in rights and social duties and there is no difference between the rich and the poor, the high and the low, or the white and the black. This is principally derived from the fact that Islam is open to all people regardless of their race and faith. The Qur'an says, "... and let not the hatred of others to you make you swerve to wrong and depart from justice. Be just: that is next to Piety" (Qur'an, Su. 5:8.) This verse indicates that justice is of the greatest importance and a universal right.

As well as emphasising social justice as a regulatory social system, Islam also warns against social inequity. The Qur'an repeatedly declares that zulm or injustice has absolutely no place in Islam. It says, "The Word of thy Lord doth find its fulfilment in truth and in justice: none can change His Words: for He is the one Who heareth and knoweth all" (Qur'an, Su. 6:115.) In warning of the disastrous consequences of discrimination and inequality before the law for an individual or a nation, the Prophet says, "Communities before you strayed because when the high committed theft they were sent free, but when the low committed theft the law was enforced on them. By God, even if my daughter, Fāṭimah, committed theft I will certainly cut off her hand."<sup>16</sup>

About the Islamic prohibition of any form of discrimination such as one based on wealth, the contemporary scholar Y. Al-Qaradawi states, "naturally this [economic discrimination] generates envy and hatred among the poor toward the rich, and contempt and callousness among the rich toward the poor. Conflicts arise, the socio-economic fabric is rent, revolutions are born, and social order is threatened."<sup>17</sup>

## 2.2 NEIGHBOURHOOD

Islam exceptionally looks at neighbourliness as the backbone of 'ummah. This is exhibited in the provision of a set of ethics which themselves are obligations that enhance and control neighbourliness. These ethics are found in two main principles: strong neighbourly relationships and the preservation of neighbours' rights

### 2.2.1 Strong Neighbourly Relationships (N1)

The Qur'an divides neighbours into three categories: a neighbour who is also a relation; a neighbour who is stranger; and a casual or temporary neighbour with whom the one happens to live or travel for a certain time. All of them are deserving of sympathy, affection, kindness and fair treatment. Islam requires all neighbours to be loving, respectful, trusting, and helpful, and to share each other's sorrows and joys. It asks them to establish strong social closeness in which each one can depend upon the other and regards his life, honour and property as safe among his neighbours. The Qur'an indicates this relationship in many places. It says, "And do good to parents, kinsfolk, orphans, those in need, neighbours who are near, neighbours who are strangers, the companion by your side, the wayfarer (ye meet), and that your right hands possess" (Qur'an, Su. 4:36.)

Sunnah also emphasises exchanging visits between neighbours, especially on major occasions, in order to establish amicable relations. It also asks for generosity towards them by inviting and helping them in their difficulties. In Riyadh al-Saliheen, (a well-known religious reference consisting of a large number of hadiths on various important aspects of Muslim's life and compiled by the famous scholar El-Emam Abe Zakriya Yahia bin Sharif Al-Nawwai Al-Demashqi (631/1233-676/1278), the Prophet says, "... nobody can be a true believer if his neighbours pass the night hungry while his [own] belly is full. He who is best to his neighbours, will enjoy the neighbourhood of God on the Day of Resurrection."<sup>18</sup> Strong neighbourly relations



should not be confined to next-door neighbours but should also extend to those further away.

### **2.2.2 Preservation of a Neighbours' Rights (N2)**

Another privilege that Islam extends to neighbours is the preservation of their rights although it must be remembered that kind treatment and strong social ties with them belong to these rights. The extreme importance of respecting a neighbour's right is declared in the Prophetic hadith which states, "the rights of neighbours were so much emphasised by the Angel Gabriel that he [the Prophet] thought neighbours would perhaps be entitled to have a share in one's inheritance also." The Prophet also said, "Do not block his [the neighbour's] air by raising your building higher without permission. Harass him not. Give him a share when you buy fruit or at least do not throw the peelings outside the door so offending your neighbour."<sup>19</sup>

The Muslim, then, should avoid causing any form of material or psychological harm to neighbours. The Prophet stressed this avoidance when he said "He whose neighbour is not safe from his harm and dishonesty, will not enter Paradise."<sup>20</sup> He was once asked about the fate of a woman who prayed much and fasted extensively and who was a frequent alms giver, but whose neighbours complained of her abusive tongue. He said, "such a woman shall be in Hell-Fire." He was, then, asked about another woman who did not possess these virtues but did not trouble her neighbours either, and he said, "she would be in Paradise."<sup>21</sup> Hence, it is a severe and punishable act to harm neighbours in any manner.

## **2.3 FAMILY**

According to Islam, the family is the base of the entire socio-cultural structure and a self-sustaining institution which ensures ideological and cultural stability over the entire spectrum of society on the one hand, and in time, past, present and future on the other. It is the most fundamental element of Muslim society because it is the cradle of the individual and the vital source of the reinforcement of society.

The importance of the family and its life as a source of the solidarity of the 'ummah and prevention of social problems is strongly emphasised in the Qur'an (i. e. Surahs 24 and 33.) About one third of the 'ahkām (legal ordinances of the Qur'an) is related to the family and its proper regulation. The function of the family is mentioned in the Qur'an in a number of ways. A Qur'anic verse says, "And among His Signs is this, that He created for you mates from among yourselves, that you may dwell in tranquillity with them. And He has put love and mercy between your (hearts)" (Qur'an, Su. 30:21.) K. Ahmed pointed out in his recent study of family life in Islam that the objectives and functions of the family as enunciated in the Qur'an and sunnah are: preservation and continuation of the human race, protection of morals, psycho-orientation, social and economic security, widening the family horizons and producing social cohesion, and motivation for effort and sacrifice.<sup>22</sup>

Like any other social institution, the family can survive only if the roles within it are clearly recognised and strictly followed. Many of these rules rest upon two principles: strong family ties and extended family.

### **2.3.1 Strong Family Ties (F1)**

Islam devotes much attention to the issues related to the relationships between the family members. This is in order to maintain the concept of 'ummah and establish the healthiest and strongest possible social foundations. Thus, Islam looks to strong family relationships not only as they are established by blood or legal ties (i. e. marriage) but also as a common religious commitment.

According to Islam, the relationship between family members is not temporary, but permanent and enduring. Family members are expected to make serious and sustained efforts to live together and plan their role in society. The relationship between all family members is not merely a utilitarian relationship. It is a spiritual relationship that sustains and generates love, kindness, mercy, compassion, mutual confidence, self-sacrifice, solace and succour. Islam wants all these who are related

through common parents, common brothers and sisters or marriage to be affectionate, co-operative and helpful to each other. In many parts of the Qur'an good treatment of the near relations (dhawī-'al-qurbā) and strong ties with them is enjoined. The Qur'an says, "Serve Allah and join not any partners with him; and do good to parents, kinsfolk, orphans, those in need, ..." (Qur'an, Su. 4:36.) It also says, "O Mankind! reverence Your Guardian-Lord, who created you from a single person, created, of like nature, his mate, and from them twin scattered (like seeds) countless men and women-fear Allah, through Whom ye demand your mutual (rights), and (reverence) the wombs (that bore you): for Allah ever watches over you" (Qur'an, Su. 4:1.) In the hadith, proper treatment of ones' relations has also been strongly stressed on and counted among the highest virtues.<sup>23</sup>

Strong family relationship is signified by the Islamic declaration of duties the members of the single family have to perform toward each other. In general, members should care of one another. God says, "O ye who believe! save yourselves and your families from a Fire" (Qur'an, Su. 44:6.) The relationship between husband and wife through marriage is a sacred contract leading to a number of relationships engendering a set of mutual rights and obligations, to attain psychological, emotional and spiritual companionship. The husband or father is assigned a position of authority so he can maintain order and to be the fittest person to have responsibility toward wife and children. The wife is expected to obey her husband and look after his well-being. Both of them as parents are responsible for their children's bearing, rearing and upbringing (i. e. education, orientation, character building and gradual initiation into religion and culture.) No institution or even a number of institutions other than parenthood can take care of this function. In return, the children are expected to behave properly towards their parents. They are responsible for the support and maintenance of their parents. It is an absolute religious duty to provide for parents in case of need and to help them and make their lives as comfortable as possible. Disobedience, neglect, or unkindness toward parents are considered as grave sins.

Islam does not permit the weakening of ties between the members who are either inside or outside the nuclear family. In declaring that it is a severe and punishable act to break these ties, God says, "Then, is it to be expected of you, if ye were put in authority, that ye will do mischief in the land, and break your ties of kith and kin? Such are the men whom Allah has cursed for He has made them deaf and blinded their sight" (Qur'an, Su. 47:22, 23.) Also a hadith says,

Abū Huraira reported that Allah's Messenger (may peace be upon him) said: Verily Allah created the universe and when He had finished this, Ties of Relationship came forward and said: This is the place for him who seeks refuge from severing (of a blood-relationship.) He said: Yes. Are you not satisfied that I should keep relationship with one who joins your ties of relationship and severs it, with one who severs you (ties of relationship)? They (the ties of blood) said: Certainly so. Thereupon He said: Well, that is how things are for you.<sup>24</sup>

### **2.3.2 Extended Family (F2)**

Islam does not absolutely specify the size of the family. Yet, Islam encourages an extended form of family in order to maintain strong family ties. There is an incident which occurred during the lifetime of the Prophet in Medina when the companion Khalid 'Ibn Al-Walid asked the Prophet about his house which had become too small to accommodate his growing family. The Prophet did not reply by asking Khalid to move to a larger house or to split his family in several houses. Instead, he asked him to raise his dwelling or build on the top of it.<sup>25</sup> This story indicates two important principles: a) taking all measures to prevent the splitting up of the family, and b) a preference for the extended family living in a single house. This incident also explains why the traditional Arab-Muslim house was never complete. As the family grew, so did the house.

Therefore, the Muslim family is an extended family. It normally has three or four generations under its umbrella. According to K. Ahmad, the Islamic extended family consists of relations emerging from consanguinity, affinity and foster-nursing. It includes a) father, mother, grandfather, and grandmother, and other direct forbears; b) direct descendants, that is sons, daughters, grandsons, granddaughters, etc.,

c) relations of the second degree (such as brothers, sisters and their descendants), and  
d) father's or mother's sisters (but not their daughters or other descendants) (fig. 2.1.)<sup>26</sup>

All those relations who are outside the extended family, according to Islam, have also their own rights and obligations due to the fact that a number of them have been included in the second and third lines of inheritors. A hadith warning from cutting ties between the members of the extended family and those outside it, says, "one who severs the ties of kinship would not enter Paradise."<sup>27</sup> This explains why the extended family has been the essential social unit throughout Islamic history.

## 2.4 INDIVIDUAL

The individual has always been the cornerstone of Islamic principles. Islam stresses that the social solidarity of Muslims starts from the individual's response (through actions) to Islamic principles. Islam in the twelfth to the fourteenth centuries AD existed in regions with a wide range of social customs. But responding to Islamic principles, particularly the unity among the Muslim 'ummah', was the essence imposed by Muslim individuals on their daily life and behaviour.

As a practical religion, Islam certainly does not regard people as angels. It recognises that human beings have been created with needs and desires. Therefore, Islam has provided principles that permit a degree of freedom to the individual member of the Muslim society, and yet determine every aspects of his life. Within the boundaries of social unity, equality and brotherhood, this provides a degree of individual freedom which remains consistent with the entire social system while being conducive both to stability and progress of society. On the other hand, for the believer, Islam provides the criteria for judging all of his behaviour and conduct; it determines his relationship with other individuals, with society as a whole, with the physical world and it determines also his relationship to his own self. Thus, on the Day of Judgement, it will be individuals in their personal capacities, and not groups or societies, who will be held fully responsible and accountable for what they have

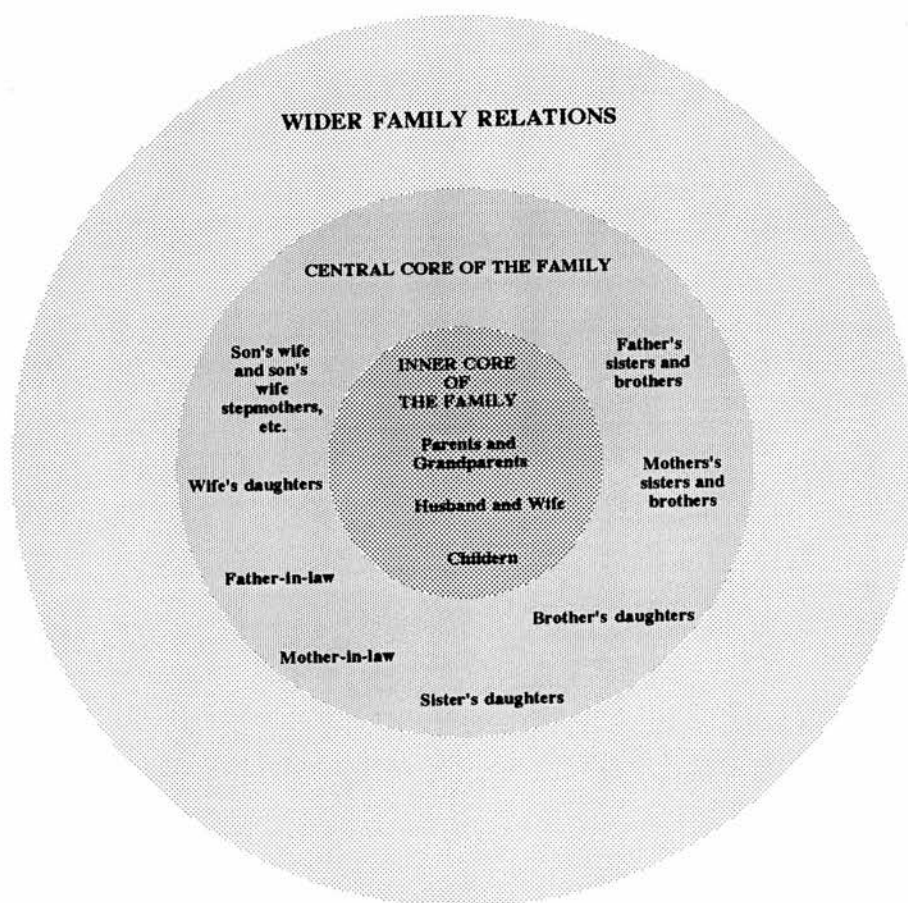


Fig. 2.1 The structure of the Muslim family.

(Adopted and modified from Khurshid Ahmad, Family Life in Islam, Leicester, The Islamic Foundation, 1987, p. 33.)



done in their earthly lives. This is because it is the individual who has been given free will, a moral sense and the knowledge of right and wrong. God says, "Every one of them will come to Him on the Day of Resurrection, all alone" (Qur'an, Su. 19:99.)

According to Islamic teachings, all acts of the individual Muslim should be performed for the sake of social goods (maṣāliḥ) or/and avoidance of social evils (mafāsid.) In fact, Islam stresses the actions of "maṣāliḥ" by dividing the individual's obligations into two related groups: "farḍ 'ain" and "farḍ kifāya." While farḍ 'ain (obligation for every individual) includes worship, knowledge, and devotion to the Islamic rules of sharī'ah, farḍ kifāya (collective obligations toward types of work and knowledge for the Islamic society) dwells on the issue of maṣāliḥ vs. mafāsid.<sup>28</sup>

According to this perspective, the individual should principally derive his behaviour and practice of life from the belief that nothing is created without a purpose. According to the Qur'an, man was created for the purpose of acting as vicegerent on earth and he came to the world to fulfil this mission. He is the representative of God on earth. By virtue of the powers delegated to him by God, he is required to exercise his God-given authority in this world within the limits prescribed by God. This trust requires man to carry out the duties placed on him by God and to assume accountability concerning them. This responsibility is the basis on which the individual will be judged by Allah and given his reward or punishment. Because of this trust, God gave man intellect, will power and freedom of choice. And because of this, God sent His messengers and revealed His books.

The responsibility of man, as a representative of God on earth, is revealed in the ultimate end of man's creation: worshipping and glorifying God. "God declares this as He says, "I have only created Jinns and men, that they may serve Me" (Qur'an, Su. 51:56.) The Islamic concept of worship does not mean simple ritualistic repetitions, withdrawal from life, or passive asceticism. It means an active observance of God and His will in every thing. Man's entire individual and social life is an exercise of

developing and strengthening his relationship with God. 'Imān or faith is the starting point of this relationship. The fulfilment of 'Imān means that the mind and heart of the individual should always be aware that God alone as his Master, sovereign, deity; seeking His pleasure; the aim of all his endeavours; and His commands alone are the commands that are to be obeyed. And the Muslim individual's actions should demonstrate this 'Imān. Hence, responsible action is encouraged, and positive behaviour is preferred to passive or negative conduct. In this regard, God says, "He that doth good shall have ten times as much to his credit: He that doeth evil shall only be recompensed according to his evil" (Qur'an, Su. 6:161.) He also says, "And say: "work (righteousness): soon will Allah observe your work, and His Messenger, and the Believers" (Qur'an, Su. 9:105.)

More understanding of the actions Islam asks the Muslim individual to exercise in his daily life will be introduced in the following discussion of further principles relevant to this study.

#### **2.4.1 Strong and Kindly Relationships with Others (II)**

Aiming to enhance the achievement of the 'ummah , which is an ultimate purpose of Islam, and create a co-operative harmonious society, Islam asks the Muslim individual to establish strong and warm relations with the other members of his society. Such a requirement also attempts to defend the individual against the psychological consequences of social isolation.

Strong relations between individuals in an Islamic community can be established if certain rules are adhered. Basically these rules consist of duties toward others. According to a research conducted by R. Levy on the social structure of Islam, Islam has declared that it is a duty of the Muslim to show the finest quality of behaviour, some of which are,

kindness in intercourse and generosity in dealings between man and man, accessibility, free giving of what is lawful, feeding the poor, the dissemination of peace, visiting the sick Muslim, whether he be upright [devout] or an estrange [lapsed], escorting the bier of the dead Muslim, being a good neighbour, whether



one's neighbour is a Muslim or a kafir [non-Muslim], honouring the aged Muslim, granting requests for food and accepting invitations to eat with others, granting forgiveness, making peace between men, open-handedness, generosity and liberality; being the first to give greeting and restraining one's anger.<sup>29</sup>

These requirements show that Islam is against an individualistic lifestyle. Their basis fits in with the Prophet's saying, "no Muslim is truly a believer unless he desires for his brother what he desires for himself."<sup>30</sup> The Prophet here does not mean the brother in blood, instead he means the brother in Islam or the other Muslim. There are several hadiths which ask the Muslim to make sacrifices for the sake of helping others.<sup>31</sup>

While Islam demands kind behaviour that strengthen the relationship between the individuals of the Muslim society, it condemns negative or irresponsible behaviour that break or reduce this relationship. Islam considers as unlawful all those acts which injure, orally or materially, the interests of another individual or of society as a whole. A hadith says, "to abuse a Muslim is fisq (an evil act)." Another says, "the life, property and honour of one Muslim is sacred to another."<sup>32</sup> The Muslim is not allowed any act, such as arguing, which could lead to conflicts. The Prophet said, "God disapproves of argumentation for you: all argumentation." Other negative attitudes such as suspiciousness are also warned against.<sup>33</sup>

#### **2.4.2 Humility (I2)**

Islam is against obtrusiveness, vaingloriousness, conceit, or any behaviour that emotionally harms others and encourages injustice and discrimination. Thus, Islam requires the Muslim to be humble in all aspects of his life. This obligation has directly and indirectly been repeatedly declared in the Qur'an.

God mentions in His book that life offers diversions and incitements including things that infatuate and encourage the individual to glorify and advocate himself. On the other hand, He states that there is a severe punishment for those who cannot control their desires and emotions toward the beauty of life and magnify themselves.

The Qur'an is full of verses (e. g., 17:37, 57:20-23, 28:76-77, 31:18, 4:36, and 53:32) that ask for humility as a personal attribute of the Muslim and state the punishment for those who do not practise this virtue.

Similarly, the Prophet's sunnah stresses that humility should dominate the Muslim's daily life and actions. And the Muslim must exercise moderation, be natural and avoid exaggeration, extravagance and a desire for fame or glory.

It is in an attempt to prevent vainglorious and self-advocating while encouraging simplicity that Islam even teaches Muslims how to eat, sit, sleep, walk, dress, etc. Indeed, the Prophet ordered the followers to be humble in their dress, prohibited them from drinking or eating in gold or silver pots and considered these actions ḥarām (forbidden and severely punishable acts.)<sup>34</sup> About this matter, the contemporary scholar Yusuf Al-Qaradawi says,

There is a social aim underlying these prohibitions. The prohibition of gold and silk to males is part of a broader Islamic program of combating luxuriousness in living. From the Qur'an point of view, luxurious living leads to weakness among nations and to their eventual downfall; the existence of luxury is also an expression of social injustice, as only a few can afford luxurious items at the expense of the deprived masses of people. In addition to this, luxurious living is an enemy of every call toward truth, justice, and social reform. The Qur'an says: "And when We intend that We should destroy a township, We permit its luxury-loving people to commit wickedness therein. Then the word is proved true against it, and We then destroy it utterly" (Qur'an, Su. 17:16.) And again, "And We did not send a Warner to any township without its luxury-loving people saying, 'Assuredly we are disbelievers in that with which you have been sent'" (Qur'an, Su. 34:34.)<sup>35</sup>

The principle of humility was reflected practically in the lifestyle of the Prophet, whose bed was just a layer of palm fibres covered with a simple fabric.<sup>36</sup>

Consequently, all activities related to human needs (e. g., eating, drinking, clothing, etc.) are allowed as long as the motive is not pride or arrogance. And any action that shows haughtiness, flaunts social status, or is exaggerated, eccentric, affected, capricious or over elaborate is forbidden.

### 2.4.3 Balanced Wealth Consumption (I3)

Islam is the religion of justice and moderation, and the Muslim 'ummah, as God describes it, is a "middle nation." He says, "Thus have We made of you an Ummah justly balanced..." (Qur'an, Su. 2:143.) Therefore, the Muslim should be balanced in all of his affairs. God has prohibited to the believers wastefulness and extravagant spending and commands them to be moderate in their living habits and financial affairs. He says, "O children of Adam! Wear your beautiful apparel at every time and place of prayer: eat and drink: but waste not by excess, for Allah loveth not the wasters" (Qur'an, Su. 7:31.) The Qur'an describes those who are extravagant in spending as Satans' brothers. It says, "But squander not (your wealth) in the manner of a spendthrift. Verily spendthrifts are brothers of the Evil Ones" (Qur'an, Su. 17:26-27.)

According to Islam, increased income does not mean a higher level of consumption. Instead, self-restraint should be the principle of consumption in the Muslim's living. M. Kahf claims in his comparative research on the Islamic state and the welfare state that the concept of richness (or high income) was defined by the Prophet as being contentment with what one has. And the general rule of spending is to keep the level of consumption to a minimum.<sup>37</sup> This was expressed in the life of the Prophet and his companions and treated as a virtue throughout Islamic history. A hadith says, "Jābir b. Abdullah reported that Allah's Messenger said: There should be a bed for a man, a bed for his wife and the third one for the guest, but the fourth one is for Satan."<sup>38</sup>

Islam confirms that wasting wealth means to spend it, in large or small amounts, on what God has prohibited or to squander it on unnecessary things. Such waste also jeopardises the rights of 'ummah. About this matter, Al-Qaradawi says,

Just as the wealth of others is sacred and any violation of it, whether secret or open, is prohibited, in like manner a person's own wealth is sacred with respect to himself; he should not waste it by extravagant spending, scattering it to the right and left. This is because the Muslim 'ummah, which constitutes an owner in

addition to every other owner, has a right to the wealth of individuals. For this reason Islam has given the 'ummah the right to manage the properties of the weak-minded who squander their wealth.<sup>39</sup>

On the other hand, balanced or frugal spending means resources are kept for benefiting other members of the society. This also minimises the competition for raw materials and maintains their prices at a relatively low level. It allows the needy members of the society to share the surplus. In the early days of Islam, the surplus of income, after keeping the consumption to the minimum, was set aside to meet socio-religious obligations such as the maintenance of kith and kin, orphans, widows, invalids and economically deprived members of the society. About how the individuals of the traditional Muslim society responded to this principle, Muhmud Ahmad and M. Akram Khan in their study of the opinion of Islam on a number of economic issues say, "... it was in line with the overall philosophy that life in this world was transitory and the real value was attached to the 'akhîrâ [or the Hereafter.] So, involvement in increasing the material objects of this life would have been a contradiction."<sup>40</sup>

God says, "Those who, when they spend, are not extravagant and not niggardly, but hold a just (balance) between those (extremes)" (Qur'an, Su. 25:67.) Explaining this verse, Al-Qaradawi says, "spending much is squandering while spending little is greed, and moderation is best."<sup>41</sup> One of many hadiths that stress the principle of moderate spending and are included in the outstanding sharî'ah scholar 'Ibn Taymîya's (661/1263-728/1328) study of public duties in Islam, states, "Three things are the cause of salvation: fear of God in secret and in public, moderation in poverty and wealth, and speaking the truth whether angry or calm..."<sup>42</sup>

## 2.5 SUMMARY AND CONCLUSION

Islamic sharî'ah, through its basic sources, has set up certain principles that are required for the achievement of the ultimate objectives of Islam and equally to order and facilitate the life of Muslims. These principles, which are integrated in a coherent

social framework, are represented in values which themselves are rules to be implemented in four social scales: society, neighbourhood, family, and individual. The two principles of the social scale, strong social interaction and social justice, evolve from the Islamic concept of 'ummah or social solidarity, which is a fundamental aim of Islam. Muslims collectively are required to observe these principles and avoid any communal actions that diminish them. Likewise, Islam has declared particular principles that determine the relationships between neighbours. Muslims are obligated to make the best effort to strengthen neighbourly relationships and maintain neighbours' rights as they are stated in the Qur'an and sunnah. At the family scale, strong ties between family members are vital due to the critical function of the family in Muslim society. Any attempt to weaken these ties is forbidden. The extended family is one of the forms that Islam encourages in order to preserve family ties, and in turn the solidarity of society. At the personal level, Islam demands that the Muslim individual should sustain an amicable relationship with his fellow Muslims and be humble in his behaviour and lifestyle and moderate in spending.

In order to strengthen the application of the principles of the social framework of Islam, Islam has set up another set of principles. These are represented in the physical framework that various sharī'ah sources require to be implemented in the physical environment of Muslims. In the next chapter, the principles of this physical framework will be explored and discussed in depth using basic sharī'ah sources (i. e. the Qur'an and sunnah), judgements of traditional Muslim scholars on relevant cases which occurred during the Islamic State period, and, when necessary, examples from the traditional Muslim environment, which was shaped by the ideals and values of sharī'ah.

# CHAPTER **3**—



## THE TRADITIONAL ISLAMIC PHYSICAL FRAMEWORK: ITS PRINCIPLES AND DIMENSIONS

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The teachings of Islam cover the whole range of all human activities and needs; spiritual, socio-cultural, economic, political and environmental. Every activity, from prayer or fasting to economic transactions or scientific experiments, is religious if it is undertaken with God-consciousness and accords with the values and principles revealed by God.

The attention paid by sharīʿah to the natural and urban environments of Muslims is reflected in certain principles which ultimately aim to enhance the social framework of Islam. These principles are clearly found in the basic sources of sharīʿah, the Qurʿan and sunnah, while others have grown within the traditional built environment of Muslims. This environment represents the application of what Islam has provided in the way of social and physical principles. From the birth of Islam in the seventh century until the end of the nineteenth century Islamic law was a major force shaping that environment, providing stability and continuity in its urban planning and design.

This chapter analyses the traditional Islamic principles concerning the physical environment of Muslims. It contains three sections each of which deals with a scale: the natural environment, the urban environment and the house. Studies undertaken by Besim Hakim, Saleh Al-Hathloul and Jamel Akbar, provide helpful information for some sub-sections on the subject of the house, where relevant Islamic principles are supported by traditional jurists' and judges' judgements included in these studies. Besim Hakim's book, "Arabic-Islamic Cities: Building and Planning Principles", Saleh Al-Hathloul's unpublished Ph. D. dissertation, "Tradition, Continuity and Change in the Physical Environment: The Arab-Muslim City", and Jamel Akbar's book, "Crisis in



the Built Environment: The Case of the Muslim City", discuss in more depth various scholastic verdicts on building issues. These verdicts were ruled upon by respected judges and jurists on lawsuits in the traditional environment of early Muslims. Most of them were derived from the basic sources of sharī'ah, namely, the Qur'an and sunnah. Others were based on sharī'ah supplementary sources such as ijmā', qiyās, istihsān and istishāb. In addition, the authors of these studies rely principally on, and refer to, different manuscripts of Kitab al-I'lam bi-Aḥkam al-Bunyan, an old hand-written book for communicating traditional building solutions by 'Ibn al-Rami (d. 734/1334), who was a building expert who worked with judges investigating urban issues in Tunis. This book includes many verdicts also ruled upon by traditional judges and jurists using various sources of sharī'ah. It also describes other relevant scholastic opinions supported by real cases to demonstrate the practice of these opinions.

### 3.1 NATURAL ENVIRONMENT

Islam has set up a responsibility for man towards the natural environment. This responsibility evolves from the role of man as God's khalifa (inheritor or vicegerent) on earth. In this regard, the Qur'an says, "He is that has made you inheritors in the earth: if, then, any do reject (Allah), their rejection (works) against themselves" (Qur'an, Su. 35:39.) In their research on the Islamic principles regarding conservation of the natural environment, Abou Bakr Ba Kader, et al., interpreted this Qur'anic verse to mean that man is only a manager of the earth and not a proprietor, a beneficiary and not an ordainer. They said, "God has created all the sources of life and resources of nature so that man may realise the following objectives: a) contemplation and worship, b) inhabitation and construction, c) utilisation, and d) enjoyment and appreciation of beauty."<sup>1</sup>

Man's responsibility towards the natural environment as emphasised in sharī'ah can be framed within the two principles: utilisation of natural resources and preservation of the natural balance.



### 3.1.1 Utilisation of Natural Resources (U1)\*

According to sharī'ah, the utilisation and sustainable use of natural resources and elements is the right and privilege of all people. This right is to a certain degree considered by Islam as an obligation. Both the Qur'an and sunnah stress this right or benefit in commanding Muslims for example to restore derelict lands and act as good stewards of nature. In fact, the Qur'an makes it clear that the relationship between man and nature is a relationship of utilisation and development. It says,

Behold! In the creation of the heavens and the earth; in the alteration of the night and the day; in the sailing of the ships through the ocean for the profit of mankind; in the rain which Allah sends down from the skies, and the life which He gives therewith to an earth that is dead; in the beasts of all kinds that He scatters through the earth; in the change of the winds, and the clouds which they trail like their salves between the sky and the earth (Here) indeed are signs for a people that are wise (Qur'an, Su. 2:164.)

In another verse the Qur'an also says,

It is He who sendeth down rain from the skies; with it We produce vegetation of all kinds: from some We produce green (crops), out of which We produce grain, heaped up (at harvest); out of the date palm and its sheath (or spathes) (come) clusters of dates hanging low and near: and (then there are) gardens of grapes, and olives, and pomegranates, each similar (in kind) yet different (in variety): when they begin to bear fruit, feast your eyes with the fruit and the ripeness thereof. Behold! in these things there are signs for people who believe (Qur'an, Su. 6:99.)

In a hadith indirectly reveals the command of the sunnah to benefit from available natural resources, the Prophet says, "On Doomsday, if anyone has a shoot in hand, he should plant it."<sup>2</sup>

While Islam supports utilising local natural resources and elements, it disapproves of any selfishness associated with this utilisation. Natural resources have been provided by God for the welfare of all people. The monetary benefit derived from these resources should, therefore, permeate to all people and should not under any

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This is a code given to a traditional Islamic principle and appears in the tables included in Chapters 8, 9 as well as Appendix A. It abbreviates the physical scale where the principle applies. The codes of the urban scale start with "U", local or neighbourhood with "L", and house with "H".

circumstances be allowed to be diverted to certain individuals or groups. Islam also disapproves of harm that could be inflicted upon others as a result of this utilisation.

### **3.1.2 Preservation of the Natural Balance (U2)**

Although Islam asks people to benefit from the natural environment for their living necessities, it requires them to maintain it. Many Qur'anic verses and Prophetic hadiths command Muslims not to abuse or damage plants and animals. For example, a Qur'anic verse that underlines the obligation of protecting nature says, "There is not an animal (that lives) on the earth, nor a being that flies on its wings, but (forms part of) communities like you" (Qur'an, Su. 6:38.) In a similar verse (Qur'an, Su. 6:59) God tells us that all creatures are of His domain, and not a leaf falls but by His will. Both verses are testimonies to the fact that natural creatures and elements are co-inhabitants on this universe and are to be treated as communities as humans and should not be harmed.

Likewise, the Prophet not only prohibited damaging natural elements such as cutting trees, but also mentioned that irresponsibility in doing so is a severe act. In an attempt to maintain a clean environment that supports the health and efficiency of people, the Prophet emphasises cleanliness as a fundamental habit of the Muslim's daily life. He says, "Cleanliness is half of faith."<sup>3</sup>

The Islamic principle of preventing the destruction or abuse of any natural element that provides benefit (i. e. food, shade, etc.) for others aims also to protect people's rights (e. g., utilisation) to the natural environment. Therefore, man should not distort natural elements; they should remain permanently suitable for human life and settlement. Nor should he use natural resources irrationally or in such a way as to destroy other resources or spoil their habitats and food bases. For instance, water as a basic natural element, is, according to the Qur'an (i. e. Sus. 21:30, 2:164, 6:99, etc.), created as the source and origin of life. Then this element should be preserved by avoiding any action or element that spoils it. Similarly, air is created for the

perpetuation and preservation of life. It is also another clear evidence for God's omnipotence, bounty, provision and perfection (i. e. Qur'an, Su. 21:164), thus, it should be kept pure and unpolluted. Chemical and biological products that could directly or indirectly damage natural elements are forbidden by Islam. This is also applied to noise, wastes, exhaust gases, radioactive substances, insecticides and other pesticides and intoxicants.

The intention of this law is to preserve the harmony that is provided in the natural environment. Indeed, the Qur'an stresses the preservation of this harmony and says that whatever God has created in this universe was created in due proportion and measure both quantitatively and qualitatively. It says, "Every single thing is before His sight, in (due) proportion" (Qur'an, Su. 13:8.) And, "It is He Who created all things, and ordered them in due proportions" (Qur'an, Su. 25:2.)

The harmony God has provided in nature symbolises His greatness, hence guides man to meditate upon and contemplate God. Therefore, it is a responsibility of man to preserve this ecological order.

### **3.2 URBAN ENVIRONMENT**

In origin and substance, Islam is an urban religion. F. Benet lays stress on this in his analysis of the ideology of Islamic urbanisation. He says, "Islam is a predominantly urban religion which thoroughly reshaped the urban structures of the worlds it conquered. By compelling ecological contrasts between the desert and the town, Islam was destined from the beginning to a predominantly urban history."<sup>4</sup>

Indeed, the spirit of the Qur'an is basically urban, anti-nomadic, and the principle elements of the Qur'anic civil law are applicable to sedentary or settled society alone. According to Benet, sedentarization, was for the Prophet, the main act of submission of the tribes to the new religion. Bedouin life was disparaged and resented as a fault to be redressed by becoming settled. The return to the desert life after living in a city was considered a sort of apostasy and was listed among the major sins as it would entail the

breaking up of the religious congregation or Muslim 'ummah'. The Qur'an itself stigmatises Bedouinism and the desert Bedouins as the worst in disbelief or rejection. It says, "Some of the desert Arabs look upon their payments as a fine, and watch for disasters for you: on them be the disaster of Evil" (Qur'an, Su. 9:98.) The necessity of urban life in Islam is also indicated in the pillars of Islam such as prayer and fasting. The concentration on the performance of these pillars requires a fixed settlement or settled way of life.

Although Islam signifies urbanisation, neither the Qur'an nor sunnah contain precise urban planning codes that could be used in planning and designing a Muslim urban environment. On the other hand, Islam, through its shari'ah, has provided principles that determine the way of life of Muslim communities and individuals in the urban environment and in turn the environment itself. In this respect, Oleg Grabar says in his study of the traditional urban environment of Muslims, "it is Islam which gave resilience to the Muslim city and to its bourgeoisie, not because it was necessarily aware of all urban problems but because it had the abstract form in which all of them could be resolved."<sup>5</sup> Undoubtedly, this abstract form was shari'ah, which regulated people's relationships with each other as well as with the surrounding environment.

The traditional urban environment of Muslims was not an external appearance of buildings and streets per se. Indeed, it was a manifestation of principles of the Islamic social framework as well as a product of fiqh. This is why the urban characteristics and conditions of most traditional Muslim cities share great similarities. These characteristics are the Islamic urban principles whose logic is different from that of modern urban and building regulations. The logic of Islamic principles does not confine man's creativity or his individual or free response to his necessities, while the logic of modern regulations obliges man to behave according to pre-determined clichés. The first depends on the restraint of the self, but the second depends on the restraint of the law.

A deep insight into the principles, which Islam has set up for the urban environment of Muslims, could be obtained by inspecting the response of Islam towards two issues: on the one hand, urban planning and regulation, on the other, the techniques of the implementation of this planning.

### **3.2.1 Urban Planning and Regulation**

The Islamic way of life, being goal-oriented, is inconceivable without ordered efforts being made in accordance with Islamic values. In fact, both the Qur'an (i. e. Su. 2:205) and sunnah unequivocally condemn disorder in all aspects of life. They request taking all the means and making organised actions in order to achieve the Islamic values. Planning or regulating the built environment is one of these efforts which greatly contributes to the accomplishment and enhancement of the social principles of Islam. Meanwhile, there are certain aims that are vital to consider in the planning of the Muslim built environment as well as the methods of implementing and accomplishing them.

#### **3.2.1.1 Aims**

Islam is not against the Western concept that planning should be geared towards the improvement of the quality of life, but it disagrees on how this goal should be achieved. According to Islam, this goal is to support the purpose of life: worshipping God. One of many Qur'anic verses that reveals this purpose says, "I have only created jinns and men, that they may serve me" (Qur'anic, Su. 51:56.) Mohamed T. Idrus notes in his paper on the Islamic ideals of town planning that Islam asks Muslim planners to gear their planning towards the achievement of this ultimate purpose by using Islamic ideals and commandments as the main guiding principles.<sup>6</sup> In other words, the general rule of planning and regulating a Muslim built environment is to fulfil the requirements of Islam as revealed in the Qur'an and sunnah. Once these requirements are fulfilled, these remain a wide scope for freedom of choice in planning and design.

As an ultimate purpose of life, worshipping God provided guidance for the planning of Medina, the first settlement in Islam, by the Prophet in 662 AD. In Medina, the

Prophet started his planning by building a mosque in the centre. Then he distributed the khittahs (quarters), 'aqṭaā (properties) and dur (houses) to the muhajreen (the group of immigrants that escorted him from Mecca), other immigrants, original tribes, the 'ansar (the natives of Medina who supported him), and other individuals. The urban characteristics of this settlement became the planning standards that were later followed in most traditional Islamic cities (e. g., Fustaṭ and Kūfa).<sup>7</sup>

There are many principles that are demonstrated in the Prophetic planning of Medina and are required to be considered as the aims of planning and regulation of the Muslim dwelling environment. These principles are as follows:

#### **3.2.1.1.1 Enhancement of the Application of Shari'ah (U3, L1)**

It is the responsibility of the Muslim authority to preserve Islamic faith and enhance the application of shari'ah. The Qur'an declares this responsibility as it says, "... But if they seek your aid in religion, it is your duty to help them ..." (Qur'an, Su. 8:72.) This responsibility should be carried out by maintaining the urban environment that helps Muslim inhabitants to perform their religious obligations to the best of their abilities.

The enhancement of the application of shari'ah in the urban environment of Muslims should be achieved by the ordaining of good and the forbidding of evil or improper actions and elements which God has revealed in His scriptures and communicated through the Prophet. As an Islamic direction of planning, the concept of forbidding the improper and commanding the proper is declared in the Qur'an, which says in describing the Muslim 'ummah, "you are the best people, evolved for mankind, enjoining what is right, forbidding what is wrong, and believing in Allah" (Qur'an, Su. 3:110.)

In order to enhance the application of shari'ah by eliminating what God and His Prophet have forbidden and vice versa in the built environment, urban planning and regulation must be associated with a constant reference to the Qur'an. This is based on



the grounds that the Qur'an has all the answers for the Muslim's life. Caliph Abū Bakker once said, "even if I lost a camel's rein-string, I shall find it in the Qur'an."<sup>8</sup>

Referring to the Qur'an and the sunnah in planning and regulating the Muslim environment is evident in most traditional Muslim cities. O. Llewellyn mentioned in his analysis of the objectives of Islamic law from city planning that cities such as Medina and Tunis exhibited the development and synthesis of sharī'ah rules relevant to physical environment. They were the product of fiqh because the mechanism of interpretation and implementation of sharī'ah took place within the process of urban development of these cities. The primary sources (Qur'an and sunnah) of fiqh were vital for transferring the Islamic value system or sharī'ah into design and planning criteria. As a result, the traditional environment was an interaction between fiqh and the planning process.<sup>9</sup>

#### **3.2.1.1.2 Reflection of the Concept of 'Ummah (U4, L2)**

As an objective of Islam, the reflection of the concept of 'ummah or social solidarity among people is an essential principle of planning and regulating a Muslim built environment. The configuration of the urban components (e. g., streets, open spaces, land uses, etc.) should respect, and thus be the end product of, this principle. This means that the built environment should be more socially oriented or should provide the means that improve social relationships and interaction.

The reflection of social solidarity was explicit in the traditional Muslim city. Being a demonstration of the concept of 'ummah, the traditional environment was a communal result. It was less the result of individual's desires than the result of society's collective objectives and aspirations. Concerning this matter, Stefano Bianca wrote in his outline of fundamental conflicts between the planning of traditional Muslim cities and contemporary planning ideology,

In traditional Islamic societies, the shared values, their religious consensus and the social interdependence between the members of the community were strong enough to co-ordinate individual decisions in a natural and flexible way-thus producing an organic whole out of a sum of individual building acts. There was no formal

scheme which would give in advance a rigid global picture of forth coming development.<sup>10</sup>

### 3.2.1.1.3 Prevention of Harming Public Rights (U5, L3)

According to sharī'ah basic sources, man as God's khalifa has been given God's trusteeship on earth to manage it. Hence, man may not be allowed to create anything that could damage this trusteeship. Such an issue is highlighted in the address which the Prophet delivered on the occasion of the Farewell Hajj. He says, "your lives and properties are forbidden to one another till you meet your Lord on the Day of Resurrection." In commenting on this Prophetic statement, Sayyid Abu'l A'La Mawdudi (1323/1903-1399/1979), one of the chief leaders of contemporary Islamic theorists, says in his book, Human Rights in Islam,

Along with security of life, Islam has with equal clarity conferred the right of security of ownership of property. The Qur'an goes as far as to declare that the taking of people's possessions or property is prohibited unless done by lawful means: the law of God categorically declares: "Do not devour one another's wealth by false and illegal means" (Qur'an, Su. 2:188.)<sup>11</sup>

In addition to the previous Prophetic hadith and Qur'anic verse, the injunction not to harm people's rights or property particularly in urban planning is drawn from the concept of "la dharar wa la dhirār" or "neither dharar nor dhirār." This concept which is also a Prophetic declaration, is explained by the respected scholar Mālik 'Ibn Anas (d. 179/795) as, "there would be neither harming nor reciprocating harm, or there is no injury nor return of injury." As a major principle of sharī'ah in the built environment, this declaration is also interpreted in fiqh as "no person or party to be harmed for another's benefit." Besim Hakim mentions that the Muslim jurist 'Isa ben Mousa ben al-'Imam al-Tutaily (d. 386/996) said that Mohamud ben Abd al-Selam al-Khocheni of Cordoba commented on the 'la dharar wa la dhirār', by saying, "no infringement, whether profitable or not. The dharar is the act of one who wrongs someone else with no profit to himself, and the dhirār is the act of one who wrongs someone else for his own profit."<sup>12</sup>



'La dharar wa la dhirār' was one of the most frequently quoted and used principles in planning and building matters in the traditional Muslim environment. It was a planning and design policy interpreted in that environment as once there was no transgression, everything was acceptable. Alternatively, one might plan, regulate or modify the built environment as long as no harm was inflicted on others.

B. Hakim defines the avoidance of harming the public as, "the essence is that one should exercise one's full right in what is rightfully his [own] providing the decision/action will not generate harm to others. Likewise, others should exercise their full rights in what is rightfully theirs providing their decision/action will not harm others."<sup>13</sup>

The principle of prevention of harming the public aims to preserve the rights and duties of people in the built environment. For example, the sharī'ah scholar 'Ibn Taymīya's (d. 728/1328) mentioned in his study of public duties in Islam that raising a dwelling was a right for everyone in the traditional Muslim environment. Yet, this right was not absolute if it obstructed the natural light or air of others. Similarly, one was not allowed to install a flour mill or a leather tanning factory in the residential area as it could be a source of pollution.<sup>14</sup>

Therefore, as the Arab historian and theorist Ibn Khaldun (d. 825/1405) said in his "Mugaddimah" or the "Introduction to History", "it is necessary that harmful things are kept away from the towns by protecting them against inroads by them, and that useful features are introduced and all the conveniences are made available in them."<sup>15</sup> Also to many sharī'ah scholars such as Al-Shāfi'ī (d. 204/819) and Al-Hānbalī (d. 241/855), it is an obligation to provide the means that fulfil people's rights in the built environment.<sup>16</sup> Urban planning should not be the power of perpetration of injustice, instead, it should be regarded as a trust from God to be used fairly. If, for example, planting or building in a public road would cause damage and harm to passers-by, it is ḥarām or forbidden and should be eliminated.

In addition to harm prevention, planning the Muslim environment should facilitate the well-being of society. Indeed, O. Llewellyn points out in his study of sharīʿah values in planning and design that the essential purpose of planning is looked upon in Islam as a process oriented towards the establishment of well-being and prosperity on earth and earning the credit for eternal peace through complete submission to God. This well-being cannot be accomplished without the recognition of the public needs which themselves are rights. According to sharīʿah, all acts, including planning and design, are evaluated in terms of maṣāliḥ or social benefits and mafāsid or social evils. O. Llewellyn adds that Muslim social needs are hierarchically ordered as absolute necessities (including religion and morality, life offspring, and property.)<sup>17</sup> This again means that any planning and design decision should be evaluated in terms of maṣāliḥ and mafāsid. It should be oriented toward the maintenance and facilitation of public benefits and interests. The wider interests of the entire society should always take precedence over the narrower interests of the sub-groups or individuals. In fact, whenever the Prophet appointed a governor, he instructed him to strive in creating ease rather than hardship for the people. This was by generating prosperity in the provision of public amenities such as infrastructure. ‘Umar b. al-Khaṭṭāb (13/634-23/644) and other caliphs paid significant attention to this matter.<sup>18</sup>

Moreover, the prevention of harming public rights should be addressed through planning by avoiding the creation of disputable elements. Adopting any planning policy or building regulation that leads to disagreements between Muslims is disapproved by sharīʿah. This verdict also aims to protect the concept of ʿummah (social solidarity) and enhance social justice.

### **3.2.1.2 Methods**

The traditional Islamic law or sharīʿah is based on positive rules of social conduct. Its rules are ideals, constituting a spiritually confirmed way of life, rather than being a mere penal code to punish infringements of arbitrary man-made prescripts. According to this theme, Islamic social values should be the factors that plan, regulate and shape the

urban environment of Muslims. This was the case in the traditional Islamic built environment whose features embodied and were influenced by the social principles of inhabitants. As a result, there was no need for a large administrative machinery to plan and regulate that environment. That environment worked efficiently primarily due to the shared image of life and the accepted models of buildings and urban pattern.

Discussing the roles of the parties responsible for controlling and shaping the traditional environment would facilitate identification of the principles which are themselves proper methods for achieving the urban planning and regulation objectives of sharī'ah. These parties who were an integrated and incorporated social entity (or an 'ummah), were: civil authority, 'ulammas (religious scholars) and above all society itself.

#### **3.2.1.2.1 Involvement of the Official Civil Authority (U6)**

The Qur'an clearly states that the purpose of the Islamic official authority or government is the establishment, maintenance and development of those virtues by which God wishes human life to be enriched by the prevention and eradication of those evils in human life which He finds abhorrent. This authority must use all the means to establish the qualities of goodness, virtue, success and prosperity which God wants to flourish in the life of His people. According to many Qur'anic verses (i. e. Su. 5:8), the authority should be a true servant of God by suppressing and preventing all kinds of exploitation, injustice and disorder which, in the sight of God, are ruinous for the world. The scholar Sayyid Abūl A'la Mawdudi explains this overall responsibility of the Muslim authority as he says in his study of the purpose and duty of the Muslim 'ummah, "the authority should demonstrate how Divine guidance leads to equity and justice, reform and uplift, caring and efficient administration, social welfare, peace and order, high standards of morality in public servants."<sup>19</sup> This responsibility should be implemented to all affairs including those related to planning and regulation of the urban environment.

On the role of the Muslim official authority in the built environment, Jean-Louis Michon states in his research on the traditional religious institutions of the Islamic city, "... its role is not to make laws, since Qur'anic law is final and already promulgated, but to create the requisite conditions for fulfilling this law and guarding its application."<sup>20</sup> If the authority introduces a planning policy or building legislation, this legislation should be directly derived from and carried out within the limits prescribed by the laws of sharī'ah and not in conflict with them. As Islam proclaims the social and spiritual needs of society, the authority, through its planning and regulation policies, should make practical efforts to bring these needs into reality.

The responsibility of the Muslim authority as discussed above was reflected in the traditional built environment. Throughout Islamic history, Muslim caliphs and governors were concerned about preventing illegal actions in the built up area. A caliph or a wālī (governor) would often personally walk through the city streets especially at night to inspect and monitor the right application of sharī'ah. For example, when the Mamluki Sultan Qaitbuy (d. 688/1260) found illegal construction in Cairo, he ordered the governor to demolish them. The demolition even included a part of a dwelling of King al-Naṣīr Farag b. Bargog's daughter.<sup>21</sup> Also, Jamel Akbar mentions in his study of the traditional territorial structure of Muslim towns that the Caliph al-Ma'mun (d. 218/833) in Cairo ordered the owners of derelict properties to rebuild or lease them to others to be developed. In another case, the Caliph 'Umar b. al-Khaṭṭab (d. 23/644) ordered the governor Sa'd b. 'Abī Waqaṣ to find a more habitable location for Kūfa, which was founded as a camp town.<sup>22</sup>

The caliph's or governor's decision regarding any urban issue was usually dictated by sharī'ah laws or jurists' opinion. His involvement should not be viewed as an intervention in the built environment or society's affairs. As previously mentioned, it was just to ensure the right application of sharī'ah.

The caliphs and governors were not the only individuals of the civil authority involved in planning and regulating the traditional Islamic environment. Another, less

important, authority also participated. It was represented in the muhtasib, who was an officer appointed by the state authority (i. e. caliph, governor, or jurist) or its in-town representative and delegated specific duties. This appointment was not in order that the muhtasib should perform these duties personally, but so that he might ensure that the duties were carried out.

In general, the muhtasib was effectively instructed to promote good and forbid evil in the supervision and maintenance of moral ethics within the built area and particularly within the market. His function was mainly to monitor the quality of commodities and affirm that the process of buying and selling within the market followed the prescribed religious codes of conduct. This was in order to protect people from dishonesty and malpractice. Two of the best known muhtasibs in Islamic history were 'Umar b. al-Khattab and Sa'īd b. al-'Āṣ, who were both appointed by the Prophet in Medina and Mecca respectively.

In a later period of the Islamic state, the function of muhtasib began to be detailed in manuscripts developed into manuals called 'al-ḥisbah or ḥisbah. These manuals instructed the muhtasib about his task and responsibilities. They included a classification of activities that caused harm (i. e. bad odour, noise, smoke, dirt, unpleasant appearance, and discomfort) to the public. They also contained instructions in regard to the proper location of these activities.<sup>23</sup> Examples of ḥisbah were the books: Ma'ālem al-Gorba fī Aḥkām 'al-ḥisbah (The Features of 'al-ḥisbah Rules) by Ibn Al-Ikhwāh Al-Qurashī, Nehaiet fī Ṭalab 'al-ḥisbah (Final Objectives of 'al-ḥisbah) by 'Ibn Basam Al-Muhtasib, and Thalāthu Rasā'il 'Andalusiyyah fī 'Adab 'al-Ḥisbah Wa-l-Muhtasib (Three Andalusian Messages in the Customs of 'al-ḥisbah and al-Muhtasib), but the best known books were written by al-Sarkhasi (d. 289/902.) In his Ḥisbah book, al-Sarkhasi included an advanced set of customary land uses and zoning regulations for the Arab-Muslim city. These regulations had been extracted from urban characteristics already in existence.<sup>24</sup>

Janet Abulughod revealed in her discussion of Islamic urban principles that hisbah controlled the development of the residential area so as not to intrude into the privacy or property rights of others. She added that hisbah not only allocated land uses, but also instructed people not to add to or change elements of their dwellings or streets in a way that might offend passers-by (e. g., by blocking or narrowing the street.)<sup>25</sup>

Both muhtasib and hisbah were socio-religious symbolic authorities rather than state or government bodies. The post of muhtasib has wrongly been viewed by some scholars as a controlling body of the traditional built environment. Yet, this was not actually the case since muhtasib's function was considered by other jurists as "fard kifāya" or "collective duty." According to Islam, every believer should act as a muhtasib by ordering good and forbidding evil. This is declared in the Qur'anic verse: "Hold to forgiveness; command what is right; but turn away from the ignorant" (Qur'an, Su. 7:199.)

#### **3.2.1.2.2 Involvement of 'Ulamma (Religious Scholars) (U7)**

Planners and designers cannot produce a built environment that perfectly responds to the Islamic principles without being well-informed about these principles, their meanings and sources. Therefore, the planing and design of the Muslim built environment must depend upon men who possess, as well as a deep knowledge of the sources and branches of religion, proven moral qualities that will guarantee their competence. This quality is so described in the Qur'an (i. e. Su. 4:135). On the other hand, if planners and designers are not religiously informed, they should seek the opinion and advice of those who are, namely the 'ulamma. This was the case in the traditional Islamic environment where governors and other individuals always took into account the judgement of 'ulamma on urban and building issues.

The word "ulamma" has various Arabic terms such as ahl al-Khibrah, ahl al-Arbab, ahl al-Nazar, etc. These terms mean a group of trustworthy individuals chosen by the qādī (judge) to investigate cases where neither litigants have specific evidence. The



qāḍī was a single judge appointed by a representative of the authority (i. e. 'amīr, walī or sometimes the caliph), involved with the power of qāḍā or jurisdiction and entrusted with applying the sharī'ah. The scholar Al-Māwardī (d. 350/1058) explains the responsibility of the qāḍī in the built environment by saying, "[the qāḍī]... exercises police powers in his district. He stops all infringements on streets and public places and causes the removal of all projections of all buildings which are too tall. He may proceed on his own initiative regarding these duties without anybody having to lodge a complaint..."<sup>26</sup>

The ultimate role of the 'ulamma was to affirm the application of sharī'ah principles. From a social point of view, those 'ulamma, particularly in the Mamluki period (650/1252-665/1267), who were judges, jurists, prayer-leaders, scholars, teachers and readers of Qur'an, were to give the community moral guidance and preserve the knowledge of religion.<sup>27</sup> Because they invoked the ethics of Islam, the 'ulamma were the administrative, social and religious authorities.

The opinions of 'ulamma were significant in shaping the traditional environment. Indeed, Ibn Khaldun (d. 825/1405) reveals in his Mugaddimah that the development of the Islamic city depended upon the development of 'ulamma's understanding of sharī'ah relevant opinions.<sup>28</sup> Sharī'ah through its sources provided these jurists, particularly the ones of the four schools of Islamic Law, with a powerful reference in dealing with built environmental issues. Shaped by religious and ethical conceptions, the framework that 'ulamma utilised in managing this environment and judging on related issues was derived from the principle that whatever fulfilled and helped to achieve basic necessities was itself a necessity and whatever led to the forbidden was itself forbidden.<sup>29</sup>

When an urban case (i. e. property or residence's right) was presented to a jurist or 'alem (pl. of 'ulamma), he primarily referred to the Qur'an, the sunnah, then to urban or relevant laws formed during the first four caliphates. If there was no precise solution

to the problem, the 'alem utilised the Islamic legal methodology of ijtihād, ijmā', qiyās, istihsān, etc. Also, earliest jurists' opinions on actual cases provided strong background and ideals for dealing with subsequent urban problems. Jurists' opinions on hypothetical cases always conformed to issues ruled by the courts and to the notions and existent practice of people.<sup>30</sup>

In her chronological analysis of the development of the Islamic law schools, the Polish orientalist Bozena Strzyzewska mentioned that the effectiveness of 'ulamma's opinion on built environmental issues was more evident during the reign of the Ummayed Caliph 'Umar b. Abdul Aziz. At that time the Islamic state included many provinces of various cultural and geographical conditions. 'Umar ordered the distribution of the jurists between these and other regions to ensure the right application of sharī'ah. In a different period, the decisions regarding where to locate a new town and where to place a mosque, the governor's residence and market-place, had been made with the advice of local 'ulamma. To illustrate this, the Muslim historian M. Al-Ṭabari (d. 311/923) reported that the Prophet's companion, Sa'īd b. al-'Āṣ, made the jurist 'Abū al-Hayyāj and a group of religiously informed men responsible for laying out the city of Kūfa. These jurists followed what was included in the Qur'an and sunnah as well as the advice of the Caliph 'Umar b. al-Khaṭṭab in determining the configuration (i. e. direction and width) of the streets.<sup>31</sup>

The involvement of 'ulamma in planning and regulating the traditional environment according to sharī'ah was also reflected in the production of relevant books. For example, the Abbassied jurist Shehab Al-Dean Ahmad b. Mohammad b. Abe Al-Rabei wrote "Solock al-Malik fī Tadbeer al-Mamalik 'ala al-Tamām Wa'lkamāl" or "The Owner's Attitudes towards the Management of Property in Full and Complete." This book which was written for the Caliph al-Mū'taṣim Billah (d. 227/842) included a section on building requirements in the Islamic context. Similar books were the manuscript of al-Jidar (the Wall) by the 'Isa b. Dinar (d. 212/827) and 'Ibn ar-Rami's (d. 734/1334) book on building laws.<sup>32</sup>



### 3.2.1.2.3 Involvement of Society (U8, L4)

In Islam, there is no differentiation between private and public responsibilities of people. Through his private and public actions and behaviour, every Muslim is responsible for the maintenance of sharī'ah in the built environment. Such a responsibility is found in the God-declared role of individual in al-'amr bi'l-ma'rūf or the propagation of good and al-nahī-'in-al-mukar or the suppression of evil. This responsibility is proclaimed in the Qur'an: "You are the best nation ever brought forth to men, bidding to honour and forbidding dishonour,..." (Qur'an, Su. 3:110.) On a number of occasions, the Prophet has affirmed this responsibility for every Muslim.

Therefore, people's Islamic beliefs and practices should be the standards and self-policing of their settlement. Indeed, they were the controllers and the mechanism that shaped the traditional Islamic environment; they were imposed by the people themselves upon this environment, not vice versa. In that environment, there was no need for explicit building codes or formal planning bodies to enforce the law and regulate it because every Muslim knew his responsibility and role in the society. Islam was the path of life that these people followed in all aspects. They respected the belief which did not permit them to create things that could lead to any form of offence. The Prophetic statement, "if a man is walking in a street and finds a branch of thorns and removes it, then God will thank him and forgive him" was an ideal that early Muslims considered highly in their environment.<sup>33</sup> Implementing this principle along with the Islamic social framework led to systematic and consistent choices for architectural and urban concepts.

### 3.2.2 Implementation (The Reflection of the Concept of 'Ummah )

Islam has set up certain principles that are necessary to apply in the Muslim urban environment. Once these principles, which are also demonstrated in the traditional environment of Muslims, are implemented, the Islamic objectives from the built environment will be accomplished and the principles of the social framework of Islam

will be enhanced. These principles which ultimately aim to reflect the meaning of the concept of 'ummah in the built environment, are represented in the stand point of Islam with regard to two major urban matters: urban zoning and urban land uses.

### **3.2.2.1 Urban Zoning: Integration of Different Socio-Economic Groups (U9, L5)**

As discussed in Chapter 2, Islam forbids social discrimination on economic grounds. It requires taking all measures that maintain the social solidarity of the Muslim 'ummah by bringing all members of society together. Therefore, the urban zoning of the Muslim built environment should respect this requirement.

The tradition of the Prophet lays down an ideal urban zoning for the Muslim environment. When he arrived in Qubah, outside Medina, in 662 AD, the Prophet built a mosque. Then he entered Medina and built another mosque and established a brotherhood between the 'Anṣar (locals of Medina) and Muhajreen (immigrants accompanied the Prophet from Mecca.) After that he distributed the lands of the city. This Prophetic approach to urban planning, which is a lesson in the blending of physical and spiritual development, demonstrates three important purposes of the Muslim's life: a) the importance of remembrance of and subservience to God, b) the unity and brotherhood of 'ummah, and c) the necessity of linking physical development with the achievement of these purposes (remembrance of and subservience to Allah and unity of 'ummah.)

By his distribution of the lands of Medina, the Prophet established the first zoning system for a Muslim environment. Realising the significance of social unity in organising the way of public life in the built environment, the Prophet gave this unity great attention and priority in the way he distributed lands. He granted the khiṭaṭ (quarters) for tribes with different, though homogeneous, ethnic backgrounds without consideration of wealth or poverty. Meanwhile, each of the granted khiṭaṭ was left to the inhabitants to subdivide according to their needs. This meant that the Prophet was more

concerned about the totality of the Muslims' settlement (and 'ummah') than about its sub-divisions. It also meant that the Prophet did not enforce any rule for the internal spatial organisation or sub-division of the khiṭaṭ. It was understood that such a spatial organisation or sub-division would be formed by both the Islamic values and the needs of the inhabitants.

As this zoning was a sunnah and above all derived from the sharī'ah principle of equality between people on economic grounds, it was followed later by the Caliph 'Umar bin al-Khaṭṭab. 'Umar instructed his army generals to organise the residential quarters of the new towns (e. g., Baghdad, Samurāi, Wasīṭ, Kūfah, Baṣrah, and Fuṣṭaṭ) according to the tribal origin of inhabitants (fig. 3.1.) The Prophet's urban zoning system was continued during the second and third centuries of the Islamic history.<sup>34</sup>

Van Grunebaum, in his study of the urban structure of the Muslim town, relates the strong similarity of the urban pattern of the traditional Arab-Muslim cities to the Prophetic zoning, and refers the urban organisation of each of these cities into quarters to the original zoning of Medina as well as the new towns founded by the Muslim armies where each tribe had its own quarter. In his analysis of the traditional city of Baghdad, which was planned in the eighth century AD by the Abbassied Caliph, al-Mansūr, Petherbridge says, "quarters were not divided into status; each was a microcosm with rich and poor living along side one another and sharing mosques, fountains, ḥammāms [public baths], ovens, markets..." Similarly, Fuṣṭaṭ was planned under the authority of 'Amr b. al-ʿĀṣ in 649 AD according to ethnic aspects. It included quarters or blocks allocated to mercenaries according to their ethnic origins (i. e. Africans, Armenians, Berbers, Greeks, Kurds, Turks and so forth.) There were also forty nine quarters inhabited by Arab tribes such as Lakhim and Bani Wail, and named after their tribes or heads of tribes or sub-tribes.<sup>35</sup>

As stated earlier, the Prophet's attempt to divide the city of Medina ethnically rather than economically was to maintain social unity and relationships among members of

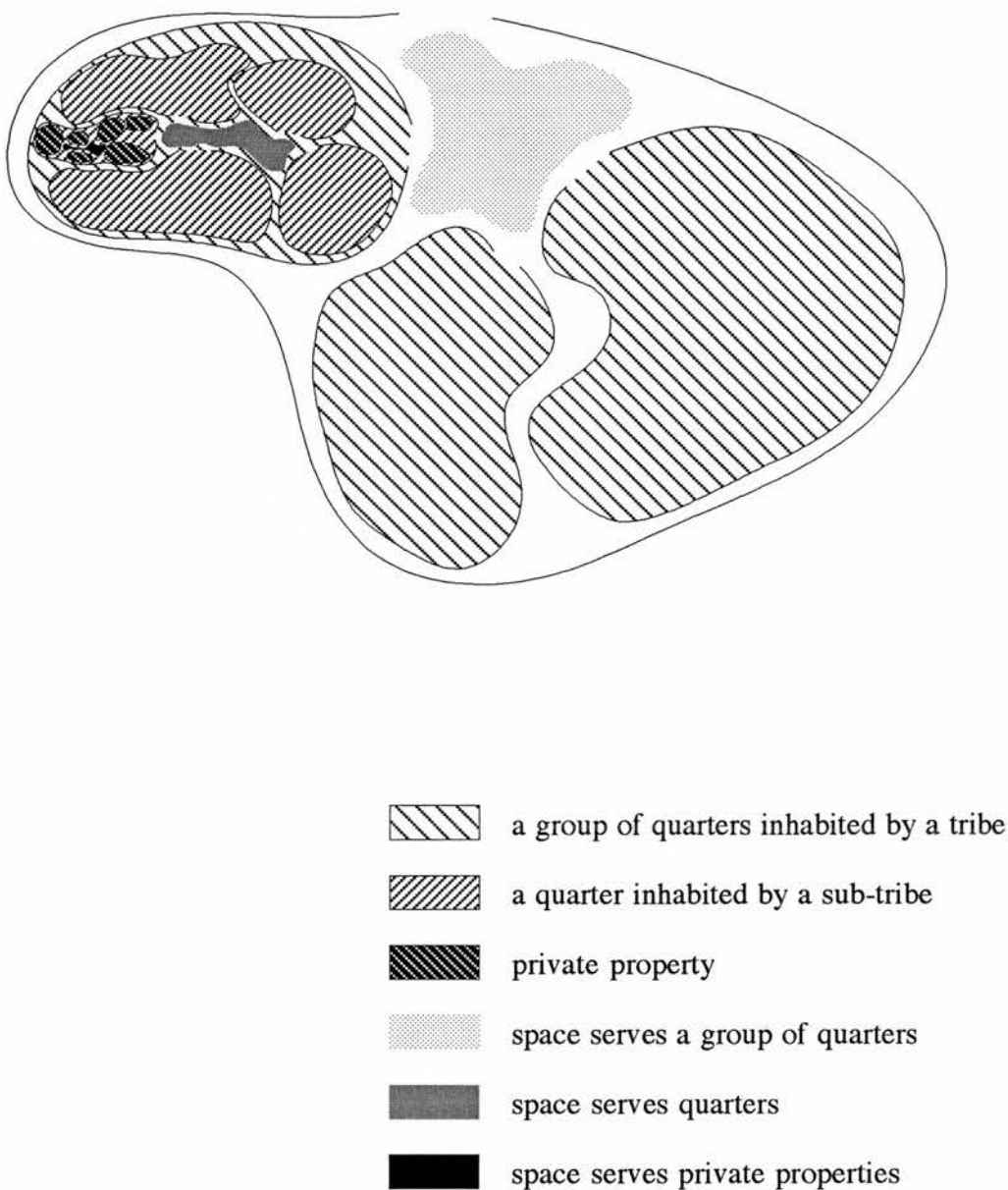


Fig. 3.1 Territorial urban zoning of early Muslim garrison towns.

(Source: J. Akbar, "Khatta and the Territorial structure of Early Muslim Towns", Muqarnas: An Annual on Islamic Art and Architecture, vol. 6, Leiden, E. J. Brill, 1989, p. 30.)

each tribe and between the tribes themselves. Regardless of being a sunnah, the Prophet's zoning was socially ideal as each tribe was accustomed to maintaining strong ties between its members, preferring to live close to each other. As a result, people of a particular quarter inhabited by a tribe or a group, had a strong feeling of communal solidarity with reciprocal duties and obligation. This in turn assisted the social solidarity of the entire society not only in Medina, but also in most traditional cities where it was possible for rich and poor families to live next to each other without any distinction.

### **3.2.2.2 Urban Land Uses**

As one of the fundamentals of the Islamic concept of 'ummah', social justice and integration determines the land use pattern of the urban environment of Muslims. In the traditional environment, every member of the society could make equal use of public spaces and religious and commercial facilities. Indeed, the essence of traditional land use distribution was primarily initiated by the Prophet. As previously discussed, the Prophet, after his arrival to Medina, organised the city firstly by building a mosque in the centre. Then he located a suq (market place) near to it and said, 'this is your suq.' After that, he distributed the residential quarters. This sunnah of centrally located mosque and suq surrounded by residential quarters, was followed in most traditional Muslim cities such as Wasit, whose land uses were distributed accordingly by the Abbassied governor al-Hajaj.

The distribution of the land uses in the traditional Muslim environment was in a mixed-pattern, which implied heavy emphasis on social integration. This pattern strengthened social relationships among people as the land uses were fully integrated and there was no need for a traffic system which might disturb the integrity of the community. However, if there was a segregation between land uses, it was only for socio-religious reasons such as the separation between public and private realms, which was reflected in the Islamic concern for privacy in residential quarters.

The following sections discuss the principles of planning and design of the main land uses of the Muslim urban environment according to what is declared by sharīʿah sources and implemented in the traditional Muslim environment.

### **3.2.2.1 Commercial**

#### **3.2.2.1.1 Commercial Necessities Accessible to Inhabitants (L6)**

Islam recognises that man has certain needs such as food, which are necessary for life. Therefore, urban planning, as a trusteeship from God to man, should be used justly by providing equal access to daily commodities in the built environment. P. Chalmers claims in his analysis of markets in the Muslim city that there are several ḥadīths in which the Prophet gives explicit injunctions that shopping places are for all members of society and should be equally accessible to them.<sup>36</sup> Facilitating public needs and interests by making shopping places accessible to inhabitants addresses the Islamic aim of social well-being. It also reflects the concept of maṣāliḥ or social benefits which was discussed in the previous section on the aims of Islam with regard to planning and regulating urban environment.

There are many relevant examples in the traditional Islamic environment from which to learn. In that environment, suqs or markets were situated in the city centre while other smaller markets or shops penetrated the residential quarters. Such a distribution of commercial activities made it easier for inhabitants to obtain their daily shopping requirements without difficulty.

#### **3.2.2.1.2 Commercial Necessities Close to Mosque (L7)**

The sunnah of locating the suq near the mosque has a practical application. It is to the mosque that Muslims go almost five times a day. Thus, locating the suq or shopping activities close to the mosque makes it possible for people to purchase their commodities on their way to and from the mosque. This sunnah was followed in most traditional Islamic cities (e. g., Al-Ḥajaj's Wasīṭ, Baghdad, and Kūfah) whose mosques

were surrounded by shops. Traditionally, locating market places in the city centre or around the Friday mosque was socially and functionally ideal as the centre was the place where there was optimum opportunity for social exchange. This relationship between the location of market place and mosque promotes the social character of the market place rather than its value as an economic institution. In other words, the market place becomes a medium for strengthening social ties between the residents of the community.

#### **3.2.2.2.1.3 Consideration of Housing Privacy when Locating Commercial Activities (L8)**

The privacy of the home and woman is a vital principle that has been declared in shari'ah basic sources. God says, "O ye who believe! enter not houses other than your own, until ye have asked permission and saluted those in them..." (Qur'an, Su. 24:27.) Therefore, it is a planning responsibility to consider this privacy when locating public facilities such as shops.

In the traditional Islamic environment, creating shops that could invade the privacy of houses, either opposite or adjoining, was regarded as a wrong act and prevented. This was on the grounds that people sat in shops, thus violating the privacy of neighbouring houses. Indeed, in a related case, the judge 'Ibn al-Haj (d. 529/1135) required the demolition of a bench built by an owner in front of his shop. As some men used to sit on this bench, its location violated the privacy of the dwellings opposite and a public bath used by women next to the shop.<sup>37</sup>

Likewise, transforming a section of a house into a shop was not allowed if it would intrude upon the privacy of neighbouring houses. The traditional judge al-Qarawi was questioned about a house owner who intended to transform a room on one side of his house into three shops. The owner of the neighbouring house protested on the grounds that the loss of privacy caused by a person working in the new shops would be severe. The owner of the shop argued that the street was wide, heavily used and one of the main



streets in town. By estimating the harm, it was approved that the total angle of vision from these shops severely exposed the entrance of the neighbouring house to visual intrusion by owner and customers of the shop. The judge, then, ordered the shutting of the new shops.<sup>38</sup>

### **3.2.2.2.2 Residential**

#### **3.2.2.2.2.1 Close or Attached Dwellings (U10, L9)**

The urban form of the Muslim environment greatly contributes to the achievement of the Islamic principles of social interaction and strong neighbourly relationships. The compact urban form of residential areas of the traditional Islamic environment not only succeeded in supporting these principles, but also was a precise implementation of the sunnah. The Prophet once said when asked what a neighbour was, he said, "the fortieth house from yours is still your neighbour..."<sup>39</sup> Accordingly, the number forty was an indication of the size limit of the neighbourhood block which appeared in many traditional cities of Muslims.

Al-Shishtawe Hassn relates the reasons for the establishment and growth of the traditional Islamic city to: a) co-operation and closeness between people (this made houses close to each other and limited the size of the neighbourhood blocks), and b) the required social closeness to achieve contacts within walking distance. To put it differently, the concepts of 'ummah' and brotherhood predominantly contributed to the morphological development of most Islamic cities. Being a key principle of the social framework of Islam, social interaction and unity led to the creation of urban compactness in the residential area. This was demonstrated in attached houses and close clusters. The result was an environment of a solid built volume in which hollows and lanes had been excavated. In his analysis of the social concepts that formed the traditional Muslim city, Kenneth Brown describes the traditional residential quarter as,

... a cluster of households characterised by a particular quality of life -'closeness' (qaraba)- that is based on multiple personal ties and common interests and an extension on contiguous spaces of a shared moral unity. Thus, the visual form of



the quarter and the city in general, has a cultural logic not in terms of physical landmarks or layouts, but with regard to conceptions of social relations.<sup>40</sup>

Furthermore, W. Kanbar reveals a different but interesting reason for the traditional urban compactness. He mentions that the Islamic obligation of fasting during Ramadan played an important role in the formation of that compactness. He says, "Due to the harsh climatic conditions of most Islamic regions, the physical trials of fasting, especially during the long summer days necessitated the building of compact settlement in order to mitigate climatic stresses and help people to fulfil their religious duty in a tolerable environment."<sup>41</sup> Certainly urban compactness created by close or attached houses enables distances between the houses themselves and religious, educational, commercial and other facilities to be kept short. In this case, walking becomes the main means of transportation. This in turn is socially, economically and environmentally more advantageous than mechanical transport systems. Also urban compactness effectively reduces the amount and cost of infrastructure and assures low overall urban development costs. This in itself is a response to other sharī'ah principles such as the moderation of wealth consumption, the safeguarding of public rights and the preservation of a natural balance.

#### **3.2.2.2.2 Streets of Functional Width (U11, L10)**

According to Muslim jurists, the width of streets comes under the sharī'ah concept of maṣāliḥ or social benefits which demands attention to the quality of life, rights of people, and the elimination of nuisance. This means that the road width is subject to its function in the residential area.

The Prophet said, "if you dispute among yourselves about roads, build them at least 7 arms [7 cubits/3.20-3.50 m.]" Some Muslim jurists from the Mā'liki, Shāfi'i, and Hānbali schools used this ḥadith as an evidence of the sharī'ah's stand on the width of the road. It stipulates that: i) the road should be wide enough to accommodate its use and serve the community, and ii) if there is an argument between for example inhabitants

concerning the road, its width should be determined by its function and intensity of use, but it should not be less than 7 cubits. This might justify why the streets of the Prophet's city, Medina, were so narrow, as the width of a secondary road or alley did not exceed 2 m, and of a public road, 4 m. These measurements were made functionally to suit the people's way of life and the transportation system at the time of the Prophet. Some jurists agreed that a person riding a camel should be able to pass through without obstruction. The dimension of a fully loaded camel with a rider or with a riding box for women corresponds to 7 cubits. When the scholar Mālik (d. 179/795) asked about how to decide on the width of the road for a group of people who were in dispute, he said, "they should leave a road that is wide enough for loads and themselves to pass through."<sup>42</sup>

Jamel Akbar in his study of the territorial structure of traditional Muslim towns, shows how seriously relating the width of roads to their function was taken in the planning of new Islamic cities. For example, following the advice of 'Umar b. al-Khaṭṭab, Sa'd b. al-'Āṣ made the roads of Kūfa according to their uses: 40 cubits (main roads); 20; 12; 7 (cul-de-sacs.) This hierarchical system of road width which was first established in Medina in 3/622 was followed in Qyrawān by the army general 'Uqba b. Nafi' in 51/668, Fustāṭ in 22/640 and Baghdad in 144/762.<sup>43</sup> This system regarded streets as gaps between houses only wide enough to meet the demands of movement and communication.

There is no doubt that determining the road width by its function sustains urban compactness and moderates climate, as well as supports the principle of strong social interaction. It is also a practical application of the principle of balanced expenditure resulting from its economic advantage.

### **3.2.2.2.3 Outdoor Spatial Hierarchy (L11)**

The issue of privacy particularly of women is a major concern of Islamic teachings. To Islam, it is a right and duty of the family to live enclosed in its house. Keeping a

clear separation between private and public life is the most significant social characteristic of Islamic culture. God has ordered in the Qur'an that Muslims should behave with modesty when they are in public or outside their houses: "Say to the believing men that they should lower their gaze and guard their modesty: that will make for greater purity for them: and Allah is well acquainted with all that they do" (Qur'an, Su. 24: 30.) Similarly, in an attempt to reflect the great value of privacy and distinction between private and public life the Prophet did not recommend using roads for public meetings but laid down specific conditions for doing so. He said to his companions,

'Avoid sitting on thoroughfares', they said, 'it is difficult to avoid as they are our gathering places where we spend time talking', 'but if you insist then you should respect the rights of thoroughfares.' 'What are these rights', they asked. He answered, 'Avoid staring, do not create harm, salute back to those who salute you, bid to honour and forbid dishonour.'<sup>44</sup>

Since it is a religious principle, the privacy of the individual and his family should be maintained in both houses and neighbourhoods alike. This was successfully achieved in the traditional environment whose outdoor spaces and streets were in a hierarchical but integrated form and order. Main roads started from the centre of a quarter where the highest level of public life occurred. They gradually diminished in size, and changed in character, form and function from public to semi-public to cul-de-sac and eventually private patio for house access only. The cul-de-sacs were so private that they were regarded strictly as an extension of the house's private space, the inner courtyard (fig. 3.2). Such a spatial distinction was enhanced sometimes by gates and arches separating between roads as well as land uses (i. e. residential and commercial.) W. Kanbar mentions in his study of the outdoor spatial order of the traditional Arab-Islamic cities that this order prevented any urban space from being ambiguous in terms of function, use and ownership. Likewise, S. Bianca acclaims the socio-religious quality of this hierarchy as it gives priority to the privacy of neighbourhoods and houses. He says,

The complex movement patterns which are designed in such a way as to avoid crossing enclosed spaces and to establish transition zones between public, semi-public, and semi-private domains, and the articulation of gateways for stressing the penetration of successive level of public or private life. These and other features

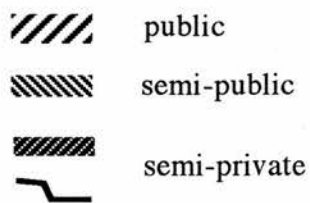
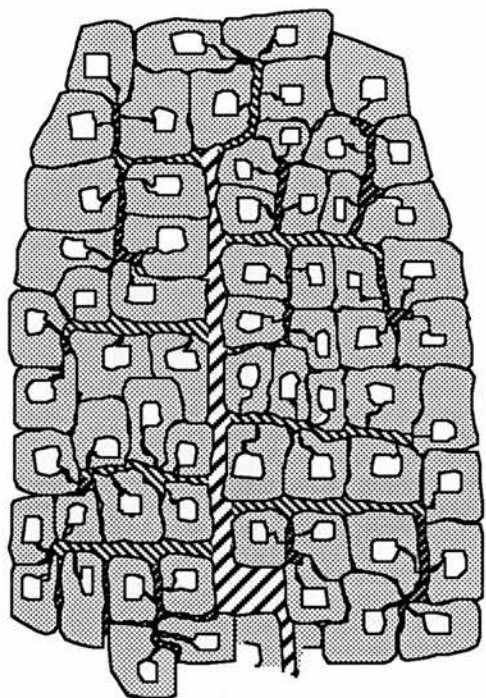
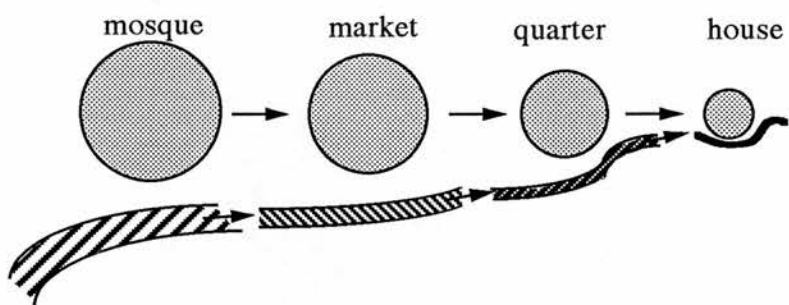


Fig. 3.2 The traditional hierarchy of outdoor spaces and street width: a hierarchy of privacy.

(Source: Janet Abulughod, "Contemporary Relevance of Islamic Urban Principles", *Ekistics*, vol. 280, Jan-Feb. 1980, p. 8, and Mousallam S. Amini, *The Inward Dimension of the Islamic City*, Research Report on Urbanism in Islam, Institute of Oriental Cultures, University of Tokyo, 1989, p. 10.)

together form a whole coinage of three-dimensional signs and symbols, which is intimately related to the Islamic way of life. This language not only established appropriate differentiation between the individual components of the city, but it also acts as the cohesive factor, which integrates the single elements into a comprehensive and meaningful urban fabric. The density of traditional Islamic fabric is hence not just a matter of spatial compression, but an expression of the tightly woven social network.<sup>45</sup>

### 3.2.2.2.3 Mosque

The mosque is the place of ṣalāt or prayer, one of the five pillars of Islam and the supreme act of submission to God. The Qur'an clearly defines the mosque as the place where the Muslim worships and expresses his belief in the unity of God through prayer: "And the places of worship are for Allah (alone): so invoke not anyone along with Allah" (Qur'an, Su. 72:18.) The word "mosque", which is mentioned in the Qur'an 28 times, is the translation of the Arabic word "masjid." Masjid literally means the place of sujūd or prostration, that is, the third position in the Islamic ritual prayers (ṣalāt) in which the forehead of the worshipper touches the ground.

The overall function of the mosque aims to generate a harmony; a harmony of the Muslim with God and of the whole community within itself as well. From a sharī'ah point of view, the mosque has two integrated purposes: religious and social. The religious purpose is to worship God in congregational prayer five times a day. The social purpose is to unite Muslims within the community and strengthen their social relationships. Regarding this purpose, S. Imamuddin wrote in his study of the social meanings of the mosque,

... the mosque is an emblem of religious and a veritable testimony of fraternal unity and solidarity of Muslim 'ummah' brings forth in a Muslim a host of feelings harmonising with his religious, social, communal and cultural aspirations... It is a symbol of identity, strength, peace and justice... It promotes collective strength, defines hierarchy and allegiance, resolves conflicts with the community, strives for social cohesion, imparts restrictions and controls of human behaviour and influences human dependence on and belief in the Almighty through spiritual enlightenment.<sup>46</sup>

The ideal use of the mosque was in the traditional Muslim environment. It was used as multi-purpose space, serving for prayers and congregation, for studying the Qur'an, for political decision-making, and as a place for rest. This use, which was a

reflection of what the 'ummah concept was all about, has been in practice since the Prophet's time in Medina.

The mosque comes in a typological hierarchy as the Qur'an reveals, "The first House (of worship) appointed for men was that at Bakka [Mecca]; full of blessing and guidance for all kinds of beings" (Qur'an, Su. 3:96.) There are three types of mosque distributed at various urban levels: masjid al-jami (a group/daily mosque for the neighbourhood), masjid al-jomah (a Friday mosque for the district), and mussalla (a ceremonial prayer place for several districts or the entire city.)

The following are two principles of shari'ah with regard to the placement of the mosque in the Muslim built environment.

#### **3.2.2.2.3.1 Equal and Proportional Distribution of Mosques (U12, L12)**

Sharī'ah prohibits building mosques close to each other, therefore, mosques should be equally distributed in the built environment and in proportion to the size of population. The Qur'an declares this restriction as it says, "And there are those who put a mosque a way of mischief and infidelity-to disunite the believers" (Qur'an, Su. 9:107.) The reason for this prohibition as the verse states is that mosques are to be constructed to unite people, not to divide them. Being bida'ah or unlawful, building more than one mosque in, for example, a cluster is a contradiction of the God-declared function of the mosque as a gathering place working so as to enhance the social solidarity among people within the cluster.

Muslim jurists agree that a mosque should be provided in every residential area. This allows residents to perform their religious and socio-religious obligations. Building mosques in an equal and proportional distribution provides inhabitants equal access to and use of the mosque. The Arab historian, Bukayr (d. 122/740), said, "during the Prophet's time, there were nine mosques in Medina other than the Prophet's own mosque and that all of the nine used to perform prayers according to Bilal's calls [a Prophet companion and the first prayer caller in Islam.]" Undoubtedly, if these



mosques were not equally distributed in Medina, some of them would have been used less than others while other mosques would have been overcrowded. S. Ghosh claims in his study of the Islamic city that traditional mosques were built at fixed distances from each other and within a functional hierarchy.<sup>47</sup>

Overcrowding in mosques is not recommended by Islam. Maintaining a proportional relationship between the number of mosques and the population of the environment prevents this overcrowding. Aware of the negative effect of overcrowding on the mosque's function, the Ayyobied sultan Ṣalāḥ Al-Dein Yousef b. Ayyob (567/1186) stopped a Friday's khutba (speech) in the most popular mosque in Cairo. He moved the Friday prayer of this mosque whose size had become very inadequate to accommodate the increasing number of worshippers, to another mosque.<sup>48</sup>

#### **3.2.2.2.3.2 Mosques Accessible by Walking (L13)**

In a collection of hadiths by El-Emam Abū Zakriya Muḥeṭ al-Dein al-Demashqi (d. 676/1278) the Prophet said, "prayers performed in mosques are twenty seven times better than that performed in solitude."<sup>49</sup> The reason that Islam prefers Muslims to pray in a mosque is not merely to conduct prayer which can be performed in the house or individually, but to bring together in the rank of faith both rich and poor, weak and powerful, without distinction. This in turn strengthens the social ties between a large number of people who meet more than once a day in the mosque.

Certainly, this aim cannot be achieved if the mosque is out of reach. Therefore, the Prophet stressed that the mosque should be located within walking distance in order to encourage people to attend. He says, "who goes to and comes from the mosque, God prepares for him a place in Paradise for every time he goes and comes." Some jurists interpreted from this hadith that even every step to or from the mosque is rewarded. Locating the mosque within walking distance (i. e. 150-200 m) also allows residents to be aware of the hours of prayer when they clearly hear the mū'azzin (prayer caller) (fig. 3.3.) The Prophet said, "the man who hears the call to pray, he has to attend."<sup>50</sup>



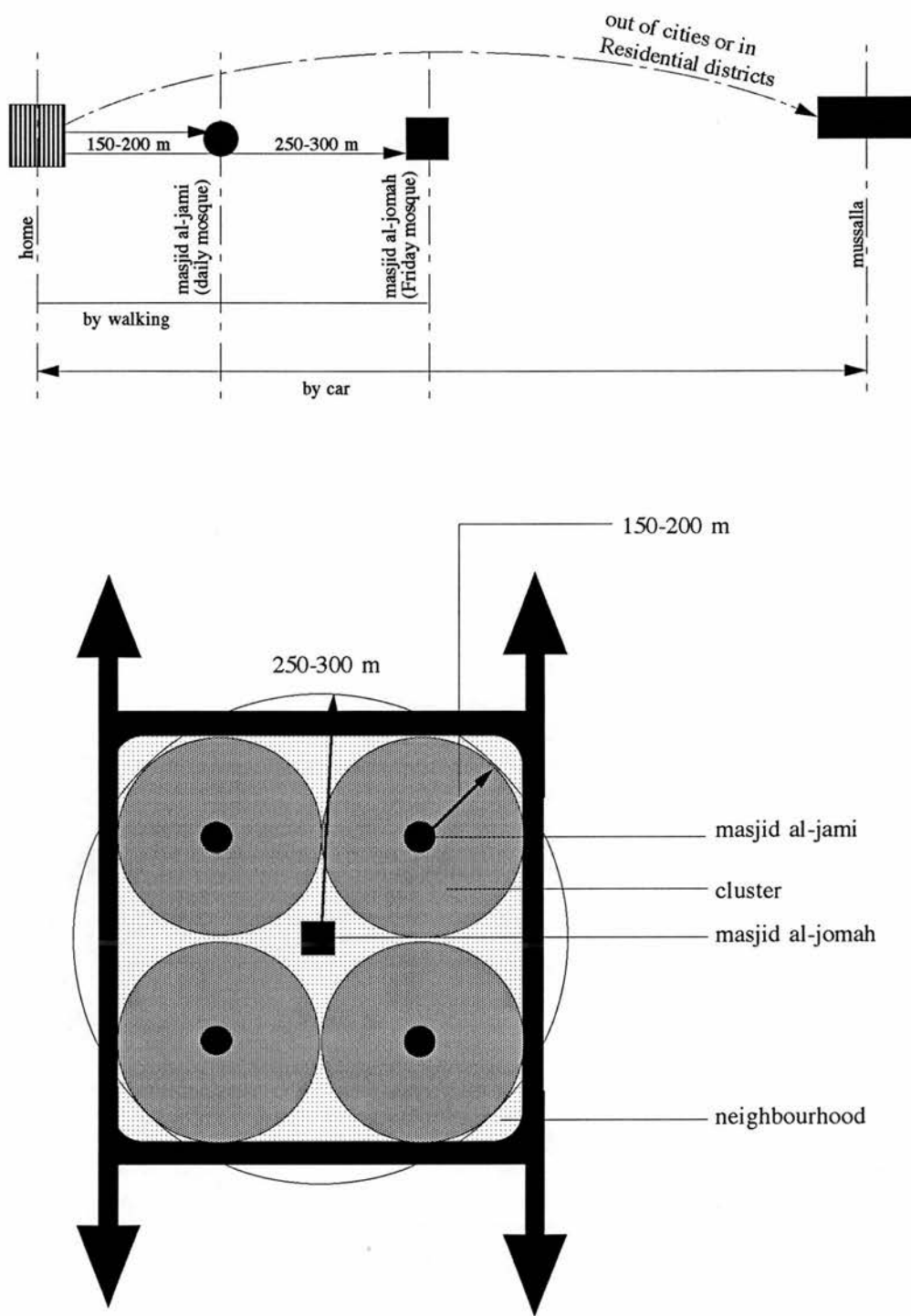


Fig. 3.3 The hierarchy of mosque in response to its distance, location and service zone. As suggested by the Arab Urban Development Institute, this hierarchy meets the required walking distance between the house and daily mosque which is encouraged by Islamic teachings.

(Adopted from, "The Planning of the Arab City: Principles, Problems and Future Trends", vol. 1, Proceedings of 1st Conference of Arab Cities Institute, 26.7-4.8, 1968, Beirut, Riyadh, Arab Urban Development Institute, 1989, p. 300 and 304.)

### **3.2.2.2.4 Educational**

#### **3.2.2.2.4.1 Equal and Proportional Distribution of Educational Facilities (U13, L14)**

Islam asks Muslims to pursue knowledge and education throughout their life. Such an obligation is emphasised highly in both the Qur'an (i. e. Sur. 20:114, 39:9, 59:11, and 35:28) and sunnah. The built environment of Muslims plays a vital role in fulfilling this obligation. This means, equal and proportional distribution of educational facilities in the built environment must be considered. Relating this distribution to the residents' density and need provides them with an easy and equal access to these facilities.

The concern for learning and education was notable in the traditional Muslim environment. In the early periods of the Islamic state, the mosque was the place where teaching and learning religion-related subjects was conducted by 'ulamma'. Later, an enclosed space, called "hūjra", was set aside in the mosque for educational purposes. In later periods, the school system of el-Madrassa emerged to perform the function of the mosque as a school and social club. In his study of the traditional educational institutions, H. Nashabi mentions that in considering all majors of sciences as forming a cohesive unity, el-Madrassa physically symbolised the Islamic concept of 'umma', which combined religious and secular activities in a totality of religious observance.<sup>51</sup>

The traditional location of el-Madaris (pl. of el-Madrassa or school) adjacent to mosques not only signified the religious and social role of education, but also supported the principle of equal and proportional distribution of educational facilities. As the mosque was accessible to all members of the society, so was the school.

### 3.2.2.2.5 Industrial

#### 3.2.2.2.5.1 Far location of Industries (U14)

God says, "Then watch thou for the Day that the sky will bring forth a kind of smoke (or mist) plainly visible, enveloping the people: this will be a penalty grievous" (Qur'an, Su. 44:10, 11.) In his analysis of scholastic rules of conduct in traditional residential areas and industry, Saleh Al-Hathloul emphasises that traditional jurists, referring to this verse, ruled that the source of pollution whether it was dirt, noise, smoke, or odour must be prevented and kept away from people or residential area. As a result, residents' rights were supported by keeping or moving unneeded industries such as building material and comparable factories to the peripheries of the city.<sup>52</sup>

### 3.3 HOUSE

"Sakan" is the Arabic denotation of the word "house." Dar and bayt are also common terms for residence. The shari'ah scholar Yusuf Al-Qaradawi defines the house as, "the place in which an individual protects himself from the climatic elements and in which he finds freedom from the restrictions and pressures of society. It is a place of rest for the body and relaxation for the mind." This definition or function of the house is based on many Qur'anic verses, such as, "It is Allah who made your habitations homes of rest and quiet..." (Qur'an, Su. 16:80.) Islam also regards the house as a place of expressing and strengthening family relationships. This indeed explains why the Prophet says that the house is the best place in the world. The Prophet considers owning a house as a contribution to, or a sign of, happiness. He says, "for the happiness, a good wife, a good thing to ride [means of transport] and a good house."<sup>53</sup> For protection, resting, expressing family relationships and thus happiness, Islam not only encourages house ownership, but also considers it a right and duty for every Muslim family.

In regard to the architectural design, neither the Qur'an nor sunnah provided detailed codes of house design and construction. This is in no way ignorance on the part of Islam in regard to dwelling design. On the contrary, it is a recognition of the fact that cultural customs change from time to time and from one place to another. Therefore, Islam permits all house related customs and design concepts as long as they do not conflict with shari'ah. On the other hand, both the Qur'an and sunnah have provided a systematic review of the sources which should produce a set of principles that guide the architectural design of housing. This review is the reality of Islam which comes as a way of life. It sets up the principles that rule how the Muslim should live his life and determine his relationship with the social and physical environments. As Islam requires, the house is to be built in accordance with and to serve these principles and therefore designers should treat these principles as guidelines of their dwelling design. In other words, the design of the Muslim house should be the product of the Islamic beliefs and values of the inhabitants.

The following are the most important principles which are driven from shari'ah sources and determine the design of the Muslim house.

### **3.3.1 Privacy**

Islam recognises the right of every individual to be free from undue encroachment on the privacy of his or her life. Therefore, the privacy of the house is significantly stated in many places in the Qur'an. For instance, a verse says, "O ye who believe! enter not houses other than your own, until ye have asked permission and saluted those in them..." And, "if ye find no one in the house, enter not until permission is given to you: if ye are asked to go back, go back: that makes for greater purity for yourselves, and Allah knows well all that ye do." (Qur'an, Su. 24:27, 28.)

Similarly, the Prophet's sunnah stresses the importance of the privacy of the home. The Prophet said, "permission (for entering the house) should be sought three times, and if permission is granted to you (then go in), otherwise go back." The Prophet went

to the extent of instructing his followers that a man should not enter his own house suddenly or surreptitiously. He should somehow indicate to those inside the house that he is entering, so that he may not see his mother, sister, or daughter in a condition in which they would not like to be seen, nor one in which he himself would like to see them.<sup>54</sup>

The Islamic principle of house privacy is an affiliation of the principle that calls a Muslim to separate between his secluded private life and his public intercourse. Meanwhile, it is a part of the Islamic system of sex segregation. As this system aims to protect the family and close those avenues that lead toward the prohibited illicit sex or even indiscriminate contact between sexes in society, it prescribes significant rules for relationship, dressing, modes of behaviour and contact between females and males. In general, Islam disapproves of free mixing between unrelated members of opposite sexes and regards this as conflicting with the role it assigns to the family in society. Islam specifies the degree of relationship between male and female in what is known in Islam as maḥram. Maḥram defines the relationship between male and female either by marriage or close blood ties. Any person outside this area of maḥram is thus regarded a stranger. God clarifies the limits of relationship between the strange male and female in an indication of who is the maḥram: "O Prophet! tell thy wives and daughters, and the believing women, that they should cast their outer garments over their persons (when abroad): that is most convenient, that they should be known (as such) and not molested" (Qur'an, Su. 33:59.) In terms of behaviour, the Qur'an says in commanding Muslim women, "If you fear Allah, do not be too complaisant in your speech, lest the lecherous-hearted should lust after you. Show discretion in what you say. Stay in your homes and do not display your finery as women used to do in the days of ignorance..." (Qur'an, Su. 23:3.) Aiming to control mixing of the sexes, this and other verses assign a specific responsibility for woman: she is to concentrate her activities and presence at home and on the family and all that is required to protect and develop these institutions. This is regardless of the social responsibilities, rights and duties Islam offers woman. The Islamic discouragement of a woman to work outside the house if not necessary and

emphasis on her family responsibilities and male's involvement in the public or outside-of-home life is a recognition of the biological, psychological and physical differences between the two sexes. This discouragement is in no way a discrimination against woman. Indeed, Islam offers her the right to own property, conduct business, receive and impart education, engage in cultural and creative activities and even to take a job when necessary. And, within the home, she shares the power and responsibilities of the head of the family and may even become one, if circumstances so require.

Islam believes that the principle of separation between sexes or the privacy of woman helps to ease sexual tension in society. For its moral and social health and well-being, this principle greatly contributes to the stability of the society.

Privacy for women is best achieved through a hierarchy of privacy within which the house is the central element. The following sections discuss the privacy of the Muslim house which can be divided into two categories: visual and acoustical.

#### **3.3.1.1 Visual Privacy**

According to the previous discussion, the family is the main concern in visual privacy, particularly the protection of female members from the eyes of male strangers. The Qur'anic verse, "O ye who believe! enter not houses other than your own...", is a command for maintaining this visual privacy in the house. One of the several h adiths that prohibits visually intruding the privacy of the house says, "He who pulls the curtain and looks into a house before he is granted permission to enter has committed an offence." The Prophet also says, "if a person ever peeps [or steals a glance] at you without permission, then you throw a stone at him, even if it puts out his eye; you are not counted as sinful."<sup>55</sup>

The protection of the privacy of the Muslim house from visual intrusion could be effected by the treatment of two design aspects of the house: site and plan.

### 3.3.1.1.1 Site (H1)

Muslim jurists agree that the visual intrusion of the house from outside should be prevented by eliminating any house external element that creates a visual corridor between the houses. Based on cases which occurred in the traditional Muslim environment, jurists ruled variously with regard to three external elements whose design could cause visual violation to home privacy: entrance doors, windows and height and high projections.

a. Entrance Doors: The placement of the entrance doors of houses should come within the principle of maintaining private life and ensure that no offence is caused to neighbours' privacy. Muslim jurists agree that these doors should not be opened opposite to or near each other and they should be offset in order to prevent the person standing at an entrance from looking directly into the house opposite or adjacent. In this respect, the Māliki jurist 'Ibn Al-Qasim (d. 191/806) says, "a person should not have a door opposite or very near to his neighbour's door. That is because his neighbours might be afraid of him meeting in front of his door that leads to inquisitive curiosity at his house. This is harmful to neighbours."<sup>56</sup>

Sometimes traditional jurists' opinion on the subject of entrance door placement was also related to the width and function of the street on to which the door was opened. For example, 'Ibn Al-Qasim ruled that to locate entrance doors in front of each other in narrow streets (e. g., 7 cubits of width) is considered an intrusion into other people's lives.<sup>57</sup> The privacy of the people inside the house could be intruded upon when the door is open. Hence, a convenient distance should be left between the doors so people could enter or unload goods near their doors without causing a violation of privacy to a house nearby.

In terms of wider streets, B. Hakim points out that jurists such as the judge 'Ibn Ar-Rafi' ruled that the doors could be placed opposite to each other if the street is wide (more than 7 cubits) and its traffic is heavy. In this case, the traffic would hinder or



block the sight line between the doors.<sup>58</sup> Nevertheless, there is a different rule that the doors should not be allowed to face each other regardless of the width of the street. Al-Qarawi supported this rule by a case in Medina, where the violation of privacy was ascertained by having someone stand at the internal threshold of the door. If that person could see the inside of the opposite house, this door was considered as offending and therefore not allowed. This is also the opinion of the scholar Mālik 'Ibn Anas (d. 179/795).<sup>59</sup> Therefore, the rule was made that a house entrance door should not be opened toward a wider street unless it is offset from the opposite entrance at an adequate distance (i. e. one or two cubits) and the vision angle of a person standing at the door is narrow enough to prevent visual intrusion of the immediate area (e. g., entrance lobby or hall) behind the door of the opposite house.

b. Windows: According to the previous Qur'anic verses and Prophetic ḥadiths which condemn spying into somebody's house, house windows overlooking other people's houses are not allowed and should be prevented even if they are the source of light and air to the house. In fact 'Ibn al-Ghammāz, a judge appointed in Tunis in 718/1318, explains that while entrance doors are made for movement in and out and do not cause much harm, windows are more harmful since the resident may sit and view his neighbours' houses without being seen.<sup>60</sup>

Traditional jurists' opinions on windows come in two forms: opinions on upper floor windows and opinions on lower floor windows.

In terms of upper floor windows, the purpose of this type of window, to jurists, is only to receive light and air. And it is a severe harm to visually intrude other houses through an upper window even if the window is small. If a window provides an opportunity to overlook other houses, it should be shut or blocked up. This opinion is based on many traditional incidents, particularly the ones which occurred during the ruling period of the Caliph 'Umar b. al-Khaṭṭab. Referring to 'Ibn al-Rami's (d. 734/1334) book, S. Al-Hathloul explains this incident by saying,

It is reported that he [‘Umar] wrote to ‘Amr b. al-‘Ās to demolish a ghurfah (room) that ‘Umar thought was built for the purpose of overlooking neighbouring houses. However, when he was convinced that this was not the intention of the owner, he wrote again to ‘Amr ordering him to place a bedstead (sarir) at the back of the window where a man could ascend on top of it; if the man could see into the neighbouring house, then the window was to be sealed, but if one could not see, the owner was to be allowed to keep it.<sup>61</sup>

An interesting ruling is found in an incident when the jurist Mu’tarrif (d. 386/996) was asked about an upper floor window which overlooked a neighbouring empty property. The owner of this property wanted to disallow that window on the grounds that it would create an offence against privacy when he built on his property. Should the claim be accepted? Mu’tarrif stated, "his neighbour has the right of objection as much before as after building. He has the right to prevent anything which will cause him offence when he builds, and if he did not object before building, he could do so after; his earlier silence does not subsequently prevent him from asserting his own right."<sup>62</sup>

From traditional jurists' and judges' rulings, ground floor windows must be placed above eye level on the street side. If there is a chance of visual intrusion into the privacy of houses on the opposite side of the street caused by this type of window, these windows are not allowed even if they are higher than eye level on the street. This ruling is based on two conditions of the placement of the ground floor windows. The first is relevant to the street onto which the window is opened. A window whose sill is low enough to allow street passers-by to see inside the house, is not permissible and should be raised. In this respect, B. Hakim says,

The sill should be 7 shibers (i. e. 1.75 m) above the ground and considered high enough to prevent a passer-by ... from overlooking. This assumes that the ground level of the interior is approximately the same as that of the exterior. However, when the ground level of the interior is appreciably lower, then the exterior window below 7 shibers is allowed if the sight lines from it are above head level of a standing person in the interior.<sup>63</sup>

The second condition is applicable to the opposite houses. A ground floor window is allowed if the person standing behind it cannot see the opposite property due to the higher level of the window or the great width of the street between the window and the opposite property. Caliph ‘Umar b. al-Khaṭṭab rules the proper height of ground floor

window that does not provide visual access to and from a neighbouring house as he says, "a bed is to be placed underneath the window, and if a man standing on it does not see through it, then the window is allowed to remain, otherwise it should be blocked up."<sup>64</sup> Calculation of the dimension that is derived from 'Umar's ruling, reveals that the window should be 2.5 m above ground level.

c. Height and High Projections: The dwelling height and elevated elements such as balconies and roof areas could be a source of visual intrusion to other dwellings. Therefore, precautions must be taken to prevent this intrusion even if there is a considerable distance between the source of intrusion and the intruded space.

Shari'ah does not specify a particular height for houses. As mentioned earlier, the Prophet said when asked by Khalid b. al-Walid, who complained about his house as it was becoming inadequate to accommodate his extended family, "build higher..." Yet the common opinion of traditional Muslim scholars such as Mālik is that extending a dwelling upwards higher than the surrounding dwellings is not allowed if it would facilitate visual intrusion into other dwellings. In fact, B. Hakim and S. Al-Hathloul cited many traditional cases on which the judgements supported this opinion.<sup>65</sup> The great concern about this issue was physically reflected in many traditional cities (e. g., Medina, Baghdad and Cairo) whose buildings were of a similar height.

In terms of high elements such as roof and balcony, the traditional rule was also to prevent them if they were a source of visual intrusion to other houses or were not properly provided with a high parapet. One of the many scholastic opinions that support this rule is that of the rite of the Al-Hānbali school, who compelled the owner of a roof to wall it in since the person using it could view the inside of a neighbouring house.<sup>66</sup>

### **3.3.1.1.2 Plan (H2)**

In many places (i. e. Sus. 24:27-33, 58-62 and 5:13-16), the Qur'an rules on the observation of privacy among family members whether they are adults or children. It

asks men and women inside the house to behave with modesty in matters for example of personal clothing and communication. Hence, the privacy inside the house should be maintained by the design treatment of both public and private domains as well as spaces regarded as sacred (e. g., bedrooms) in the private domain.

In terms of the public domain, the existence of a space for hosting guests is necessary in the Muslim house. This necessity is derived from the duty of maintaining strong relationships with society members (e. g., neighbours, relatives outside the family, and friends.) Although Islam greatly encourages the invitation of guests, it disallows mixing between unrelated male guests and the family females. Therefore, direct visual access between the guests' domain or reception area and the family's is prohibited. Design measures should be provided in order to eliminate such access and to maintain the privacy of the family's domain. In traditional houses, this requirement was achieved by transitional or double system of circulation between public and private domains. This requirement was a response not only to Qur'anic verses, but also to the Prophet's command of avoiding an unexpected glance: "permission is needed as a protection against glance."<sup>67</sup>

The most important spaces to protect from the sight of the guests' area are the kitchen and living room. Females usually spend most of their time in these spaces whose placement in the house should allow them to mingle freely.

The sleeping spaces are regarded by Islam as sacred. The Qur'an says,

O ye who believe! let those whom your right hands possess, and the (children) among you who have not come of age ask your permission (before they come to your presence), on three occasions: before morning prayer; the while ye doff your clothes for the noonday heat; and after the late-night prayer: these are your three times of undress: outside these times it is not wrong for you or for them to move about attending to each other ... (Qur'an, Su. 24:58.)

This verse initiates the requirement to increase the privacy of the spaces used for sleeping and their isolation from other spaces in the house. Separation in sleeping spaces of male and female children is also required.

### **3.3.1.2 Acoustical Privacy**

This form of privacy is of no less importance than the visual. The Prophet says, "On the Day of Resurrection, lead will be poured into the ears of anyone who eavesdrops on others who dislike him."<sup>68</sup> Therefore, precautions should be taken to prevent sound transmission from the house to the outside and from the family's domain to the guests' inside the house.

The acoustical privacy of the Muslim family house could be classified into two forms: site and plan.

#### **3.3.1.2.1 Site (H3)**

The elements (i. e. walls, roofs and floors) of the enclosure of the house should not allow the penetration of the inhabitants' voices, particularly females', to streets and neighbours. This principle is based on the Prophetic prohibition of listening clandestinely to people's conversation without their knowledge.

Although some traditional scholars do not allow sound or voice penetration through openings (i. e. doors and windows) between neighbours, other scholars do. For instance, 'Ibn al-Rami reveals that this penetration is allowed as long as the openings do not violate the visual privacy of the interior of the neighbouring house.<sup>69</sup>

#### **3.3.1.2.2 Plan (H4)**

The previous hadith can be used to rule that voices should not be heard from the family's domain or spaces used by the females of the family where, in the public domain, unrelated males are received.

The traditional houses of Muslims exhibited a high concern for acoustical privacy. To illustrate this, in a typical traditional house there were three internal zones: male, female, and service, linked through a court. This spatial organisation and layout ensured acoustic protection between these zones as well as from outside or adjacent areas.

Moreover, the dense materials (i. e. stone, rock or mud bricks) and the thickness of the walls provided a high standard of acoustical insulation.

### **3.3.2 Peace vs. Damage: The Concept of "Sukoon"**

"Sakan" or "maskan" is the Arabic word that is used to denote the house. It is rooted from the word "sakinah" or "sukoon", which means rest, peaceful tranquillity, and quietness. Sakan is mentioned in the Qur'an more than forty five times. For example, the Qur'an says,

It is Allah Who made your habitations homes of rest and quiet for you; and made for you, out of the skins of animals, (tents for) dwellings, which ye find so light (and handy) when ye travel and when ye stop (in your travels); and out of their wool, and their soft fibres (between wool and hair) and their hair, rich stuff and articles of convenience (to save you) for a time (Qur'an, Su. 16:80.)

This and similar Qur'anic verses (i. e. Su. 61:12) indicate that the house is a source of peacefulness in and to the Muslim individual's life as well as society's. This means that the physical elements of the house and/or the activities of its inhabitants should not be a source of physical and mental offence to the inhabitants themselves, neighbours or society. A peaceful atmosphere cannot exist in the built environment if the house includes sources of discomfort and dispute. Hence, Islam prohibits such sources and any activity that leads to them as the Qur'an says, "And do not eat up your property among yourselves for vanities, nor use it as bait for the judges, with intent that ye may eat up wrongfully and knowingly a little of (other) people's property" (Qur'an, Su. 2:188.) For protecting a person from damage while prohibiting him from causing offence to others, the Prophet says, "There is no legal validity in any action that brings excessive injury to oneself or others."<sup>70</sup>

The Islamic principle of maintaining a peaceful atmosphere in society or built environment by avoiding a house-related damage to others should not be viewed as an unjust rule that restricts the freedom of inhabitants in their home life. In fact, the right to private property or house is one of the fundamental rights in shari'ah. Everyone has the right to own a private property. The owner has the right to utilise, modify, or build on



his property and the freedom for the creative beneficial use of it. But, this right or freedom is subject to the manner of using it. Abusing or mistreating the house property and ownership rights by causing offence to others is forbidden by sharī'ah. The Prophet said in his khutabat al-Wad' (Farewell speech), "O mankind! your life, your property, your chastity are hallowed as much ... as this holy city of Mecca has been hallowed..."<sup>71</sup>

The obligation not to offend others and their properties not only aims to protect the rights of the individual and society, but also to maintain the safety of people and prevent the disintegration of society.

According to traditional Muslim jurists, damage caused by the house and activities of its inhabitants could be divided into two categories: damage to the public and damage to neighbours.

### **3.3.2.1 Damage to the Public**

This means a nuisance or physical harm is created by the physical elements of the house and its function and inhabitants' activities on the people who share the right to use certain public properties (i. e. streets and open spaces.) In order to protect and ensure the rights of both private owners and the public, Islamic sharī'ah has distinguished between public and private properties. Private ownership means the property which has never been legally acquired for streets, roads, squares, forests and mosques in which everybody has the right to share. On the contrary, public properties are owned by all Muslims collectively and not by private individuals, groups or even the civil authority, whose role in the built environment, as mentioned earlier, is to ensure the right application of sharī'ah.

Traditional Muslim jurists condemned all infringements of public places and roads. A. Safak points out in his study of urbanism in Islamic law that with the advice of these jurists, caliphs or their representatives used to forbid private intrusions into public places and destroyed illegal constructions on them. One of the traditional rules that protected



the rights of both private and public ownership whenever there was a conflict or contest between private advantage and public disadvantage, a balance was preferred. Yet priority was given to public rights and benefits.<sup>72</sup>

In order to prevent any form of damage created by the house on the public, the design of the house should respect the following two principles:

#### **3.3.2.1.1 Avoidance of Harming Public and their Property (H5, L15)**

Sharī'ah prohibits the obstruction of public properties by temporary or permanent obstructions by house-related elements (e. g., by projections, entrance doors or gates) and activities that misuse or offend against these properties and their users. This prohibition aims to prevent disturbance (e. g., of narrowing the road) of circulation and interference with users of these properties. A. Safak and S. Al-Hathloul mention that scholars such as Mālik reject these elements and activities, consider them severe and punishable acts if they cause damage to the public or affect the use of public properties, and demand their elimination. This rule is also applied to derelict parts (e. g., walls) of the house that threaten to collapse and endanger public safety. Judges such as 'Ibn Abd-Rafi' (d. 733/1333) ordered these parts to be pulled down immediately in order to forestall their possible damaging consequences.<sup>73</sup>

Nuisances resulting from activities in the house are also not allowed if they cause or lead to hindrance to the public and their property. In a relevant traditional case mentioned by B. Hakim, a judge in Tunis after knowing that residents allowed waste water to be discharged on roads from outlets under the doors of their houses, ruled that residents should stop doing this. He ordered that anyone who did not obey this rule be punished. Although this incident does not specify the nature of the harm caused by this act, sweeping water could make the street slippery, endanger the safety of passers-by, and would also constitute a health hazard. Indeed, water spouts projected from some dwellings were prohibited according to the jurist 'Ibn al-Ukhuwwah (d. 729/1329.) Similar items such as garbage and construction materials were also not allowed in front

of houses as they attracted dirt and caused obstruction to the roads and were a hindrance to passers-by.<sup>74</sup>

In the traditional Muslim environment, the right of the public to use their properties was also protected by the prohibition of growing plants and tying animals (the traditional mean of transportation) in front of the house for long periods. Moreover, changing the function of the house or a part of it into a different one (e. g., bakery) was considered an offence. Even including a mosque in one's house was not allowed. Rejection of permission was ruled on the grounds that the new function could increase road traffic and overcrowding and generate smoke, in the case of a bakery. This was the opinion of some jurists such as Rabi'ah (d. 136/753) and Mālik who ruled that house owners had no right to obstruct or transform public roads.<sup>75</sup>

#### **3.3.2.1.2 Avoidance of Benefiting from Public Land for Individual Interests (H6, L16)**

This principle is different from the above as it means avoidance of taking advantage of public properties and rights for the house benefit even if no damage is inflicted upon the public.

According to shari'ah, private ownership is not legal for streets, roads, squares, pastures, forests, and mosques which are communal property and can never benefit from privately. This is stated by the Prophet: "whoever takes a span of land by force (or illegally) will have sevenfold of the earth wrapped around his neck." About a relevant incident occurred during the Caliph 'Umar b. al-Khaṭṭāb's ruling period, Mālik (d. 179/795) said, "'Umar passed by 'Abū Sufian while he was building his house in Medina, and he noticed that the foundation of the exterior wall protruded into the street. 'Umar said: 'Abū Sufian you have exceeded your rights and protruded into the rights of others, so remove your wall; 'Abū Sufian obeyed 'Umar and began to remove the foundation stones until he completed."<sup>76</sup> It should be noted from this case that the

foundation was underneath the ground of the street and would not occupy any part of it if it was allowed to stay.

According to S. Al-Hathloul, many traditional scholars prohibited appropriating a part of the street for the benefit of the house even if no harm was created. For example, a man who owned all except one of the houses in a cul-de-sac, built a gate in the mouth of the street. The owner of one house objected to this gate although it did not do him any harm. The judge ruled that the gate was to be demolished. Another example is a case which took place at the centre of Medina. A house owner acted in a way which indicated his intention to appropriate part of a public passageway next to himself. The residents sued him in court and the judge ordered that all that he had built there to be demolished.<sup>77</sup>

The prohibition against taking advantage of public spaces by private individual interests aims not only to protect present public rights on these spaces, but also future users. Indeed, benefiting from a public space for the house, in the long run, would encourage the house owner not only to occupy that space but to extend his property beyond it. Also, this benefit may create physical damage to the space itself and its function as well as offend future users. B. Hakim presents many cases in which some Māliki jurists disliked while others forbade changing the function of the house or part of it even if there was no harm. The disallowance was decided on the grounds that such a change would generate a nuisance (i. e. obstructing the street and hindering traffic) in the distant future.<sup>78</sup> Therefore, a hypothetical public need or damage should always be considered for the benefit of the public when ruling on issues similar to the above.

### **3.3.2.2 Damage to Neighbours**

Regardless of the social obligations that are declared in the Qur'an and sunnah toward neighbours and discussed in Chapter 2, Islam has set up principles of how to meet these obligations in the house. Apart from the previously explained principle of privacy which should be respected in dwelling design, shar'ah embodies a general rule

which prohibits the house from being a source of physical discomfort to neighbours. This rule, which is derived from several ḥadīths such as "la dharar wa la dhirār" or "no damage and no damaging in relation to others", discloses that the ownership and integrity of the neighbours' property must be respected and no action should be allowed to affect its function or inhabitants. In setting principles in regard to neighbouring house ownership and rights, Islam aims to maintain the right of every individual in society and in turn to strengthen the solidarity of the Muslim 'ummah'. There are three main principles: avoidance of damaging neighbouring house rights, avoidance of taking advantage of neighbours' property, and making the house a source of strong neighbourliness.

### **3.3.2.2.1 Avoidance of Damaging Neighbouring Housing Rights (H7)**

According to Islam, the rights of house ownership are limited by similar rights of neighbours. This clearly means that the house owner can include elements and make changes within his property so long as no offence is caused to his neighbours. If, for example, a person lives in a low rise building, and his neighbour lives in a similar house and uses the roof or courtyard for daily activities such as sleeping, he may not extend his house upwards because of the nuisance (e. g. privacy intrusion, prevention of air and sun, etc.) he may inflict on his neighbour. This is based on many Prophetic ḥadīths such as, "He who really believes in Allah and the Last Day should not harm his neighbour."

The following discusses some of the basic sharīʿah principles concerning the neighbouring house rights.

#### **3.3.2.2.1.1 Natural Light and Air (H8)**

It was mentioned in the beginning of this chapter that Islam has emphasised the right of everyone to natural elements such as sunlight and air. In a group of ḥadīths collected by F. Karim, the Prophet said, "Do you know the rights of your neighbour?"

... you must not build to exclude the breeze from him, unless you have his permission..."<sup>79</sup>

Traditional jurists such as 'Ibn Wahb (d. 197/813) and Ashhab (d. 204/819-20) permitted a person to open windows within his house to receive sunlight and fresh air even if neighbours rejected these windows on the grounds that they facilitated intrusion onto their privacy. These jurists expressed their permission that as long as the window was high enough so that the passer-by could not be able to see behind it, then it should be allowed. Also in the traditional Muslim environment, it was prohibited to create any element in or modify the house in such a way that sunlight and natural air was prevented from reaching neighbouring houses. Jamel Akbar referred to some cases where people modified their houses in a way that blocked the neighbours' windows and cut off their light and air. Such an act was ruled as the greater injury and prevented.<sup>80</sup>

Sharī'ah not only ensures the entry of natural air to houses but also its quality. It prohibits the spoiling of that air by smoke from other houses, and it considers causing a nuisance to neighbours by smoke as an act of damage. To Muslim jurists, smoke of any kind is considered harmful because of the reference in the Qur'an to it as a "penalty grievous." The Qur'an says, "Then watch you thou for the Day that the sky will bring forth a kind of smoke (or mist) plainly visible enveloping the people: this will be a penalty grievous" (Qur'an, Su. 44:10, 11.)

Similar to smoke, offensive odour or excessive smell and any source which creates it, should not be allowed to offend neighbours. The origin of this injunction is the Prophet's exclusion of those who have eaten onions and garlic from attending the mosque. He says, "Those who have eaten it should not come near our mesjid [mosque]. If you have to eat it, then cook it first." 'Ibn al-Rami mentioned particularly that this ḥadīth was followed in most jurists' ruling regarding the removal of garbage, effluent, and sources of unpleasant smells to neighbours.<sup>81</sup>

### 3.3.2.2.1.2 Safety and Quietness (H9)

Traditional Muslim jurists ruled that the house should not be a source of threat to the safety and peace of mind of neighbours. In the traditional environment, the principle as practised was to prevent any part of the house from falling into a dangerous state, in which it might collapse and constitute a threat to neighbours. This concern for the safety of neighbours was also reflected in the ban on the sweeping of water from the house (e. g. kitchen or roof) onto a neighbouring one. According to 'Ibn al-Rami, "the general attitude towards the flow or spillage of rainwater from one neighbour's roof to another's is considered harmful."<sup>82</sup> It is so considered because of the deterioration that this water may cause to the neighbours' walls, as well as to the spaces behind them.

Any source that generates extreme heat and disturbs neighbours was disapproved. In one of many traditional incidents that are included in B. Hakim's study, a judge ordered a householder to remove an oven in his house as its considerable heat penetrated the chimney wall and caused offence to a neighbour.<sup>83</sup>

In terms of quietness, several traditional jurists disallowed any source of noise that caused discomfort to neighbours. Noise was regarded as a harm which should be prevented. In a lawsuit, a person was prevented from constructing a stable next to his house because the animals' movement during the day and night prevented neighbours from sleeping. But at the same time, some jurists allowed the source of noise in the house if it was very necessary for the livelihood of its inhabitants, yet this ruling was not absolute especially if the noise was associated with vibration. There was a common agreement among Muslim jurists that vibration which caused damage to neighbours or their houses was not allowed and should be prevented. In one of the cases, a person in Tunis was ordered by a judge to remove a door in his house due to the vibration and discomfort it caused to neighbours by its creaking and slamming.<sup>84</sup>

### 3.3.2.2.1.3 Adjacent Public Space (H10)

Islam offers householders a short-term or a temporary ownership of the space in front of the house entrance door. Although this space which is traditionally called "fina", is regarded for public use since it is a part of the road, occupants are allowed to use it only for entering, loading and unloading to the house. According to scholars such as Mālik, a house owner whose door opens on to this space has the right to use it in a way that does not harm the road, its function and users as well as neighbouring afnia (pl. of fina.)<sup>85</sup> The owner is neither permitted to incorporate this space into his house nor to prevent his neighbours from utilising their afnia while he is using his fina. An offence would be committed against a neighbouring fina if for example a door opens onto or items are left in front of it. The aim of specifying the conditions of utilising the spaces in front of the houses is to protect both public and neighbours' rights, facilitate the daily life of owners, and above all, maintain a strong neighbourly relationship between residents.

### 3.3.2.2.2 Avoidance of Taking Advantage of Neighbours' Property (H11)

According to sharī'ah sources and scholars such as Abū Ḥanīfah (d. 149/767) and Mālik, the Muslim may not take advantage of neighbours' property for his own benefit. The Prophet says, "it is ḥarām [a severe and punishable act] for Muslim to take (so much as) a stick without the consent of its owner." Also, the companion 'Ibn Mas'oud said, "I asked the Prophet: 'O Prophet of Allah, which kind of oppression is the greatest?' He said, 'if you have illegally captured an arm of land from your brother in Islam, it is considered the greatest oppression. For if a stone has been unrighteously taken away from a piece of land, that stolen stone will be wrapped around the neck of the wrongdoer till the centre of the earth...'"<sup>86</sup>

Similar to other sharī'ah principles, the principle of avoidance of benefiting from a neighbours' property which is derived from the previous Prophetic ḥadiths and the concept of "la dharar wa la dhirār", was greatly used by jurists in ruling on cases in the



traditional Muslim environment. For instance, the judge al-Wansharisi (d. 914/1508) reported a case in which a person dug a well near his property wall. The neighbour on the other side, who had a cistern, objected. The well was so close to the cistern that it caused it to leak. The only way to prevent this was to in-fill the well, which in fact the judge ordered the owner of the well to do. Likewise, 'Ibn ar-Rami reported a case in which a person planted a fig tree in his yard. His neighbour had a cistern close to the wall of that yard, and the roots of the tree penetrated the wall and damaged the cistern. The tree was ordered to be uprooted.<sup>87</sup>

### **3.3.2.2.3 Making the House a Source of Strong Neighbourliness (H12)**

Islam not only regulates the relationships between neighbours and their houses in order to ensure their rights, but also stresses the value that the house should be as a physical medium through which neighbourly relations are sustained. In an attempt to make the house a source of co-operation among neighbours, the Prophet proclaimed that "no one should prevent his neighbour from fixing a wooden peg in his wall."<sup>88</sup> This is of course on the condition that no harm results to the neighbour. Indeed, benefiting and helping neighbours in the manner the Prophet stated is regarded by Islam as a ṣadaqah or rewarded act.

Aiming to enhance social solidarity between neighbours, sharī'ah disapproves of any disputable element or aspect between neighbours in the house. Thus, it is a responsibility of the Muslim to avoid any source in the house that could lead to conflicts with neighbours. This responsibility is not only limited to the next-door neighbour. The Prophet clarifies that the neighbour is not only the one living next to the house, but also the one living in as far as the fortieth house away and a Muslim should avoid conflict with all his neighbours. He said, "The fortieth house from your house is your neighbour and no one is eligible for Paradise if he is in conflict with this neighbour."

### 3.3.3 Humility in the House: Avoidance of Self-Advocating and Wealth Wasting (H13)

Humility, the social principle that was discussed in Chapter 2, is not only applicable to the personal behaviour of the individual Muslim, but also to his house. Shari'ah forbids self-aggrandisement and extravagance in all matters of living. A hadith states, "Abū Heraira reported that Allah's Messenger said that there was a person who used to walk with pride because of his thick hair [or appearance] and fine mental [or intelligence]. He was made to sink in the earth and he would go on sinking in the earth until the Last Hour would come." Also, the Prophet said, "Verily Allah likes three things for you and He disapproves three things for you. He is pleased with you that you worship Him and associate not anything with Him, that you hold fast the rope of Allah, and be not scattered, and He disapproves for you irrelevant talk, persistent questioning and the wasting of wealth."<sup>89</sup> Indeed, the Prophet pointed to the prohibition of exaggeration and squandering even in the building of a mosque. He stated, "I was not commanded to build high mosques." And, "One of the signs of the Last Hour will be that people will vie with one another about mosques." On a different occasion the Prophet said, "every spending is for the sake of Allah, except spending on building, there is no good [or reward] in it." Abdul Aziz Aba Al-Khail, a well known and religiously informed Saudi architectural theorist, explains this hadith in his study of the interpretation of the Islamic architecture in accordance with the Qur'an and sunnah, by saying that spending on building is not rewarded if the building is unnecessarily built or exceeds the need of its owner.<sup>90</sup>

The Islamic prohibition of self-advocating or conceit via exaggerating spending in the house is also driven from the Islamic point of view on the purpose of housing. To Islam, the house is to provide shelter from the climate and to secure the necessary privacy and safety. This purpose does not mean that the Muslim should spend large amounts of money on building beautiful houses, concerning himself with matters of secondary importance, such as ornamentation and unnecessary rooms.

Humility in the house is also a manifestation of the Islamic prohibition of indulgence in a luxurious life. The Prophet warned against infatuation with this life and required Muslims to challenge themselves by doing good deeds and avoiding conflicts. Such a warning is essential for social justice and solidarity. Indulgence in a luxurious life-style undoubtedly has serious effects on the morals and behaviour of individuals, and on society as a whole. Excessive spending is viewed by Islam as an expression of an individual's preoccupation with form rather than substance, with material rather than with spirit. About this issue, M. Al-Kaysi in his study of morals and manners in Islam says,

Clothes, houses, parties, gifts, drain the resources of individual and community, as people (having lost sight of the true function of these things) spend money in a fruitless endeavour to prove to others their greater purchasing power; in their world the ability to waste goods is a proof of personal success and of the success of the society to which they belong. The consequences of self-adornment or amusement becoming ends in themselves can be measured in the fortunes devoted to these activities ... But the real cost of so defying the realities of human accountability under God's law, is the loss of the soul of each individual who hurries fretfully from one escapism to another, seeking to be always excited or distracted and, whenever he catches himself alone, feeling profoundly empty and wretched.<sup>91</sup>

The prohibition of self-advocating and profligacy in the house does not necessarily mean that people should live in miserable housing conditions. Beautification and elegance with balance are not merely permitted, but are required by Islam which forbids any attempt to prohibit them. This is according to God's saying, "Say: who has forbidden the beautiful (gifts) of Allah, which He hath produced for His servants, and the things, clean and pure (which He hath provided) for sustenance? Say: they are, in the life of this world, for those who believe, (and) purely for them on the Day of Judgement" (Qur'an, Su. 7:32.) Islam demands Muslims to be careful about their appearance, dress decently and maintain their dignity. This is also applied to the house which the Prophet urged to keep clean as a vital expression of Islam. The Muslim is certainly free to desire beauty for his or her house while following the principle of humility and moderation in expense, in which the characteristics of his or her dwelling can be tidiness, cleanliness, simplicity and modesty.

In order to learn more about this important Islamic principle, the following sections discuss the points of view of shari'ah on how to achieve this principle in two architectural design aspects: inside and outside the house.

#### **3.3.3.1 Inside the House (H14)**

As God and the Prophet have warned Muslims against excessive spending and luxury, the spatial aspects and furniture of the Muslim house should respond to this warning. In terms of spatial aspects, the house should not include unneeded spaces and its characteristics of space should allow and reflect the inhabitants' full and adequate use of the house. Full functionality of the house cannot be achieved if each space is assigned for a particular use. Indeed, mixed or multi-function of space was a dominant feature in the traditional Muslim houses. In these houses, rooms were almost without specific function, and daily activities such as sleeping, eating and socialisation among the family members were performed in any room.

Although the mixed-use of house spaces greatly facilitates the full use of the house, specifying rooms for particular uses is allowed only for religious reasons. For example, the privacy of the house cannot be protected without transitional spaces (e. g. entrance hall) between the outside and the inside of the house. Similarly, the privacy of the spaces used by the family cannot be achieved without spatial separation between the domain that is used by the family and that used by guests.

A separate room for guests should not be regarded as a contradiction of the principle of humility and balanced spending which necessitates spatial multi-use and room-number limitation. Islam greatly encourages hospitality for the maintenance of strong social, neighbourly and family relationships. Exchanging visits strengthens bonds between individuals and is highly valued as one of the significant elements in a healthy social life. It eradicates the social isolation which is not acceptable within Islam. Thorough generosity and hospitality toward guests is highly recommended, but without

extravagance. In fact, a separate guest room close to the entrance was a basic need even for the poor in the traditional Arab-Muslim house.

The principle of humility inside the house can also be achieved by limiting the size of spaces in relation to their actual use. Although Islam demands spacious rooms, they should be appropriate to the satisfaction of the daily needs of inhabitants. They should not be too small nor extravagantly large. God says, "O ye who believe! when ye are told to make room in the assemblies (spread out and) make room: (ample) room will Allah provide for you." (Qur'an, Su. 58: 11.) A. Aba Al-Khail cites several Prophetic hadiths that encourage spaciousness in the house if needed.<sup>92</sup>

The Prophet said, "If one of you was in the shade and soon was partly in the sun and partly in the shade, then he should rise."<sup>93</sup> From this hadith, it could be ruled that it is necessary to protect the house from harsh climatic conditions. This in turn suggests that windows or openings of the house should be protected from sun and oriented to receive shade. Choosing the proper techniques that passively moderate the micro-climate of the house (in hot-arid areas) would greatly contribute to the achievement of the principle that prohibits excessive spending in the house. There are many examples (e. g. shading elements, courtyard, earth construction materials, landscaping, compactness, etc.) featuring traditional houses and indicating the concern for house protection against climatic variables.

Eliminating excessive decoration in the house is also another response to the principle of humility and moderate expense. One might say that some traditional Muslim houses featured artistic decoration on interior walls. According to the architectural study made by Stefano Bianca of the traditional Muslim urban environment, decorations such as Qur'anic verses or geometric patterns were not for self-advocating purposes. They tended to hide structural factors related to the construction materials of the house.<sup>94</sup> Also they were limited to caliphs' places.

In terms of the furniture of the Muslim house, the contemporary Muslim scholar Yusuf Al-Qaradawi says, "Islam disapproves of excess, and the Prophet disliked the Muslim's filling his house with items of luxury and extravagance, traits condemned by the Qur'an, or with items related to paganism, the very thing against which the religion of the Oneness of God has fought with every weapon." Al-Qaradawi adds, "The purpose of this legislation is to rid the house of excessively luxurious items. 'Ibn Qudamah [a Prophet's companion] expresses this idea in clear terms as follows, '... the reason of this prohibition is the show of extravagance and pride on the one hand and the injury to the feelings of the poor on the other.'"<sup>95</sup>

A lesson could be learned from traditional Muslim dwellings whose furniture was characterised by simplicity and necessity and made from local materials. The dominant use of floor furniture in the house by early Muslims could be regarded as a response to the Qur'anic verse, which says in describing the people of Paradise, "They will recline on carpets, whose inner linings will be of rich brocade: the fruit of the Gardens will be near (and easy of reach)" (Qur'an, Su. 55:54.) Many Qur'anic verses (e. g., in Sus. 83 and 18) mention that cushions and mattresses are the most important furniture of Paradise. It is an Arab-Islamic tradition that sitting on such floor furniture is a sign of humility and respect for others.

### **3.3.3.2 Outside the House (H15)**

Islam disapproves of excessive spending on decoration and expensive materials applied to facades to distinguish oneself from others or one house from another. The companion Anas 'Ibn Mālik said, "I was passing with the Prophet in one of the streets of Medina when the Prophet saw a dome constructed from mud. The Prophet asked, 'Whose is it?' After I told him the owners' name, he said, 'Every building will fall on its owner on the Last Day, except mosques.' Then he told me to tell the owner what he had said. The owner then demolished that dome." The narrator 'Abū Dawūd added or in fact clarified this ḥadīth that when the Prophet disliked the dome he said, "every building is an offence to its owner, except what is essential or necessary." According to A. Aba



Al-Khail, who cited this ḥadith, the Prophet disliked domes in houses as their form, details and elegant construction are an exhibition of extravagance and strikingly distinguish the house from other houses, and this in turn hurts the feeling of the poor. He added that a dome and similar forms applied to facades do not benefit the house structurally, only visually. Therefore, these forms are exaggerated decoration, self-advocating, and unnecessarily spending. And the external treatment of the house should be in accordance to residents' actual needs that are permitted by Islam. If the house includes more than the needs of its owner, the excess is a mischief to the owner in this life and the hereafter. It is a mischief in life as it costs him more. Even if he has considerable capital to spend on the house, whatever surplus over and above his needs should be spent on virtuous deeds not on luxuries.<sup>96</sup>

In addition to other Prophetic ḥadiths, the Qur'an in many places warns against extravagance in buildings and their appearance which allow people to forget that their life in this world is temporary and might be shorter than their buildings. For instance, a Qur'anic verse says, "Do ye build a landmark on every high place to amuse yourselves? And do ye get for yourselves fine buildings in the hope of living therein (forever)?" (Qur'an, Su. 26:128, 129.) In this verse, God is pointing to the people of the Prophet Hūd, who warned them against amusement in life while forgetting retribution after death by immoderate attention to buildings as if they were going to live endlessly, as the buildings would.

While sharī'ah prohibits excessive spending and decoration on the outside appearance of the house, it allows decoration that is balanced, not costly and not damaging to the feelings of less fortunate Muslims. In other words, the outside of the house should not conspicuously project an image of wealth to generate the envy of neighbours and passers-by, nor be an ascetic structure devoid of decoration. This was demonstrated in traditional Muslim houses, some of which included decoration on the facade. Yet that fine external treatment was not for stylistic consistency, nor a desire to



show off or to draw attention to oneself. Humility and simplicity of the appearance of traditional houses were dominant to the extent that in some Islamic cities it was difficult to distinguish one house from another. Certainly, this was a clear reflection of the sense of realism and remaining faithful to what Islam has asked for.

### 3.4 SUMMARY AND CONCLUSION

Shari'ah, through its sources, has set up certain principles to follow in the various scales of the physical environment in order to support the social values of Islam. At the scale of the natural environment, preservation, while utilisation of natural resources, is the principle in which shari'ah has defined the relationship between man and nature. In regard to the urban scale, the shari'ah's view is that planning and regulating the built environment of Muslims should accord with the social principles of Islam. As urban planning decisions determine the shape of social life in the built environment of Muslims, urban zoning and land use should focus on the reflection of the Islamic concept of 'ummah', which calls for social integration and the protection of people's rights and needs. On the house scale, Islam demands the maintenance of the privacy of residents. Therefore, the siting and design of the Muslim house should respond to this obligation. Also, the house should not be a source of offence either to neighbours or the general public. Shari'ah prohibits any element or activity in the house that could harm the use and users of public spaces and neighbouring houses. This is in an attempt to protect the inhabitants', neighbours' and public rights and their respective domains. For many socio-religious reasons, shari'ah also disallows self-advertisement and excessive spending in the house.

Islam has not established these principles to control oppressively the freedom of people in the physical context. Instead, Islam aims to clarify and secure people's rights and duties, and thus create an atmosphere of co-operation and peace. Being a part of

this world of mixed-cultures, contemporary Muslim society has new requirements which are completely different from those of the traditional society within which these principles developed. Change is not ignored in the system of shari'ah, which includes principles directing Muslims on how to deal with new developments.

The next chapter explores these matters and the points of view of shari'ah on relevant issues, particularly regarding modernity.

# CHAPTER **4**—

## ISLAM AND MODERNISATION: PRINCIPLES vs. MATERIALS

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The modernisation process exhibited in the dramatic socio-cultural and technological changes taking place in most Muslim countries since the beginning of this century is associated with a confusion about the compatibility of Islam with these changes. Due to the demands of modernity, many Muslims now think of their religion in a spiritual rather than a practical sense: Islam has become a spiritual entity rather than a reference to daily life and an aid to solving its problems. One of the major reasons for this conflict is the link of modernisation with the west. Many Muslims, particularly those less intellectual who represent the vast majority of contemporary Muslim society, tend to strongly associate modernisation with the notion of westernization. There is no doubt that most modern social and technological concepts implemented in various Islamic countries have been developed in the west and have their roots in non-Islamic principles applied by non-Muslims. Some of these concepts have failed to satisfy the traditional and contemporary needs of Muslim society and thus have become socially problematic.

The problem of the compatibility of Islam with modernisation is not only a result of the perceived identification of modernisation with the western or non-Muslim world, but is also due to an inability to establish a modernity that conforms with the principles of Islam. Mohammed Arkon, in his study of the present Muslim character, claims that some contemporary Muslim scholars believe that the inability to evaluate modernisation in Islamic terms or to create a modernity from within Islamic shari'ah is the outcome of pressure imposed upon the development of an Islamic way of thinking. This pressure, which is illustrated in the economic, political and social problems of the Islamic world,

makes developing a modern Islamic way of thinking almost impossible. These problems force Muslim countries to concentrate on finding solutions to them rather than developing a contemporary Islamic way of thought. As a result, ready-made western solutions and ideals become the immediate and dominant alternative.<sup>1</sup>

The confusion about the compatibility of Islam with modernity is also deepened by some irrational opinions of western orientalists. For example, Bozena Styzewska comments in her book, The History of Islamic Shari'ah, that contemporary Muslim scholars are unable to interpret any new principles based on Islamic sources dealing with modernisation because these scholars think that ijtihād (striving hard) has disappeared with the death of traditional scholars and the founders of the Islamic law schools.<sup>2</sup> This point of view seems to be unsound because, as was discussed in Chapter 1, ijtihād is a source of shari'ah and its application is not confined to scholars of a particular time. John Esposito, in his study of Islam and development, observes that many westerners, particularly theorists, take the contemporary socio-political and political events that have occurred in the Islamic world during the last three decades as evidence of the incompatibility of Islam with twentieth century life and technology.<sup>3</sup> In his analysis of the contemporary movements of renewal in Islam, Derak Hopwood notes that western sociologists see in these events (e. g., Islamic Fanaticism in the Middle East and North Africa), strongly publicised by the western media, as a sign of a doubtful Islamic response to change.<sup>4</sup>

Similarly, other western and Arab theorists are not sure if traditional Islamic principles could cope or co-exist with contemporary socio-cultural and physical problems and do not believe that it is easy to specify the relationship between Islamic principles and modernity. Saleh Al-Hathloul reveals this issue in his discussion of the traditionalization of the contemporary Muslim built environment. He writes that nowadays there are two points of view in the Arab world: the modernists and traditionalists. The first not only rejects the authority of Islamic tradition as a controlling authority, but also does not believe that this tradition could be a source of

modernity. Indeed, these modernists consider tradition as an obstacle to development. They believe that the only approach to catching up with world development is to ignore every traditional value and start from scratch. This zero point is represented by the principles on which western modernity is based. It suggests that Muslim society needs to import thoughts and technology from other contexts. On the other hand, the traditionalists argue that the tradition of Islam is the only authority and alternative to shape the future. This means that Muslim society is required to be isolated from contemporary reality and everything becomes just an imitation of the past. Traditionalists do not reject modern imported technology because of its essential role in Muslim society, but they lay down a condition for its acceptance. The condition is to evaluate the cultural significance of this foreign technology. Al-Hathloul believes that in this acceptance, traditionalists relinquish their rigid point of view.<sup>5</sup> Meanwhile, modernists, in their insistence on modernity as a replacement of tradition, confirm the two ideals they promote. The first is their endless fascination with modern technology and an assumption of its ability to handle social and physical problems. The second is their conception that modernity is a synonym of westernization. In other words, everything western is modern. As mentioned earlier, a great proportion of Muslim society shares this idea. Al-Hathloul points out that there are dilemmas facing the points of view of both traditionalists and modernists. The traditionalists' opinion reflects a misunderstanding of the nature of modern technology. Traditionalists understand technology merely as materialistic innovation serving a practical purpose and comprising tools or machines. Al-Hathloul believes that the reality of technology consists of activities, in addition to materialistic innovations, that are associated with socio-cultural and technical rules which become a part of this technology. Traditionalists ignore this issue because they believe that it is very simple to disassociate technology from its socio-cultural meanings. On the other hand, the dilemma that faces modernists is their belief that it is possible to ignore traditional principles as unworthy of consideration when importing modern concepts or technology. Al-Hathloul emphasises the contradiction between the two opinions which have created a dualism,

represented in various kinds of rules (i. e. city planning, educational, administrative, etc.) established in Arab countries. These rules are not compatible with each other. Some of them are the product of the past, while others are imported from outside.<sup>6</sup>

Some of the above points of view about the incompatibility of Islam with modern developments are over-simplified simply because the traditional social and physical principles of Islam, which were discussed in the previous chapters, if not providing the solutions, at least have the potential for solving the social and physical problems of today, particularly the ones engendered from the impact of modernisation on Muslim countries. The sources of sharef'ah such as ijtihād, qiyās, istihsān and istiṣlah, whose nature was discussed in Chapter 1, are flexible enough to deal with contemporary matters. Not only this, but sharef'ah includes certain rules and thoughts which allow a response to development (or modernisation) of Muslim culture and physical context.

The remainder of this chapter explores the Islamic principles applicable to development and the adoption of technology.

#### **4.1 IDEOLOGICAL (BEHAVIOURAL AND MORAL) DEVELOPMENT**

The general rule is that Islam prohibits adoption of any non-Islamic behaviour or ideological concept that could directly or indirectly affect Islamic beliefs. This prohibition is announced in many Qur'anic verses such as, "O ye who believe! obey Allah, and obey the Messenger and those charged with authority among you. If ye differ in anything among yourselves, refer it to Allah and His Messenger if ye do believe in Allah and the Last Day: That is best, and most suitable for final determination" (Qur'an, Su. 4:59.) And, "O ye who believe! if ye obey the unbelievers they will drive you back on your heels, and ye will turn back (from Faith) to your own loss" (Qur'an, Su. 3:149.)

Islam forbids Muslims to imitate non-Muslim behaviour and values or to follow their way of life, so that Muslims might develop their own distinct and independent behaviour. It also disapproves of any behavioural innovation that is not derived from



Islamic teachings. Islam is against bid'ā or innovated practice because Islam covers all aspects of life. This fact is clarified in God's saying: "This day I perfected your religion for you, completed my favour upon you, and have chosen for you Islam as your religion" (Qur'an, Su. 5:3.) Also in a ḥadith cited in Min mafahīm 'al-'aqeda: Al-wala' wal'ibra' fā 'Islam (On the Patronisation and Discharge in Islam) by the modern sharī'ah scholar, Mohammed bin Saied Al-Gahtani, the Prophet said, "Every bid'ā is a misguidance."<sup>7</sup>

Islam does not allow Muslims to adopt non-Islamic behaviour and norms because it asks them to be distinct in their values and principles and some of these foreign practices (e. g., pork eating, alcohol drinking, gambling, etc.) are against Islamic teachings. God has declared this in the Qur'an, which says, "He has chosen you, and has imposed no difficulties on you in religion; it is the cult of your father Abraham. It is He Who has named you Muslims, both before and in this (Revelation); that the Messenger may be a witness for you, and ye be witness for mankind!" (Qur'an, Su. 22:78.) Fahid Al-Hariqi Nawaiser claims in his discussion of the religious aspects of Muslim built environment that there are many ḥadiths in which the Prophet requests believers to identify themselves clearly from others by observing Islamic behaviour and values while avoiding others'.<sup>8</sup> Indeed, manners play a vital part in the maintenance of cultural identity. It is therefore obvious that manners embodying a Muslim life should be distinguished from others by their own Islamic character. However, the strongest justification of prohibition of non-Islamic behaviour and beliefs is the entity of Islam. Islam is a mobilising ideology in its interconnected set of concepts and beliefs that provide a guide for each Muslim's life. And the sources of Islamic sharī'ah represent an accurate body of principles for overcoming problems, both material and spiritual, and for evaluating matters in life. Therefore, there is no need, or even an excuse, for a Muslim to innovate or adopt any foreign ideological concept.

Despite the previous restriction, Islam allows a Muslim to develop his or her own already existing Islamic norms and values or to adopt foreign behaviour and thought not

specified in Islamic teachings or fiqh, only if necessary and within a framework of conditions. These conditions are,

a) enhancement of the role of man on earth as God's khalifah (vicegerent);

b) benefit to other Muslims;

c) absence of mental or physical offence to others; and,

d) selectivity, adaptability and compatibility of the new behaviour or norm with Islamic principles.

In a hadith cited in Reuben Levy's study of the social structure of Islam, the Prophet said to the companion Ṣa'ib, who had been his friend in the jahiliya (before the revelation of the Qur'an): "Look to those moral practices you had in the jahiliya, and apply them in Islam; give security to your guest, be generous toward orphans, and treat your neighbour (the stranger who is under your protection) with kindness."<sup>9</sup> This hadith permitted earlier Muslims to adopt non-Islamic proper norms and ideals which later became a part of Islamic teachings.

As an indication of the flexibility of Islam, this permission facilitates the life of Muslims. It supports the present necessary international cultural exchange. The Muslim can take advantage of western culture if it is necessary and within the previously mentioned conditions. As long as it does not include or lead to a contradiction with Islamic principles, the western experience can be beneficially exploited by avoiding its mistakes. Nonetheless, the necessary cultural or ideological development does not have to be based on the western model. The supreme irony today is that western society is going through a process of self re-appraisal and is discovering values and wisdom from its past. It would be inappropriate for Muslims to follow or adopt any behavioural characteristic or habit which is in the west itself subject to criticism and evaluation.

## 4.2 TECHNOLOGICAL DEVELOPMENT

Islam allows benefits to be derived from, or exploitation of, non-Muslim knowledge and science. This allowance is based on the proclamation of Islam that one of the purposes of man's existence in this world is to gain knowledge, particularly in matters that reflect God's greatness (e. g., knowledge of nature). God in a hadith gudisy (God's saying insinuated to and narrated by the Prophet) says, "I was a Hidden Treasure, and I desired to be known, so I created Creation that I might be known."<sup>10</sup> In this statement, God makes it clear that man's position in the world and a purpose of creation is "to know" Himself through His perfect instruments of knowledge. God has given man the power to master and develop this world by knowledge because he (the man) is the vicegerent of God on earth and the instrument of His will. In several Qur'anic verses, God praises those who are well informed and those who pursue knowledge. He says, "And so amongst men and crawling creatures and cattle, are they of various colours. Those truly fear Allah, among His servants, who have knowledge" (Qur'an, Su. 35:28.) And, "Say: 'Are those equal, those who know and those who do not know? It is those who are endued with understanding that receive admonition'" (Qur'an, Su. 39:9.) Also many relevant Prophetic hadiths are included in Riyadh al-Saliheen, a well-known religious reference consisting of a large number of the Prophet's sayings on various important aspects of Muslim's life and compiled by the respected scholar El-Emam Abe Zakriya Yahia bin Sharif Al-Nawwai Al-Demashqi (d. 676/1278.) These h adiths emphasise that a Muslim should acquire knowledge and praise those who pursue it.<sup>11</sup>

Ismail Serageldin in a chapter of his book, Space for Freedom, goes more deeply into this obligation for man's development. He says,

The pursuit of knowledge is the single most striking feature in a system of great revelation such as Islam. The word 'Ilm' (knowledge) and its derivatives occur 880 times in the Qur'an. But knowledge is not perceived as neutral. It is the basis for better appreciating the true world around them. Indeed, believers are enjoined to look around and to learn the truth. The Prophet exhorted his followers to seek knowledge from as far as China, then considered to be the end of the earth. Scientists were held in high esteem: the Prophet said that the ink of scientists is

equal to the blood of martyrs. The very first word of the Qur'an revelation was an order to read and then to learn, and to seek knowledge.<sup>12</sup>

Islam also commands Muslims to develop industries, crafts and professions as they are essential for the life, strength, posterity, and wealth of the Muslim 'ummah. Several Qur'anic verses encourage Muslims to use the world's resources for the benefit of mankind. To illustrate here, "Say: who hath forbidden the beautiful (gifts) of Allah, which He hath produced for His servants, and the things, clean and pure (which He hath provided) for sustenance? Say; they are in the life of this world, for those who believe, (and) purely for them on the Day of Judgement" (Qur'an, Su. 7:32.) In another verse the Qur'an says, "And We sent down iron, in which is (material for) mighty war, as well as many benefits for mankind" (Qur'an, Su. 57:25.) Also, "Lost are those who ... forbid food which Allah hath provided for them..." (Qur'an, 6:140.)

The contemporary shari'ah scholar Yusuf Al-Qaradawi states in his popular book, The Lawful and the Prohibited in Islam, "The essential industries and professions are not merely permitted by the Islamic shari'ah, they are in fact an obligation which Muslim community as a whole must fulfil ... if there is a shortage of qualified persons in some fields of essential science or industry, the entire Muslim community is blameworthy, especially those in positions of authority."<sup>13</sup> Agreeing on this, the scholar Al-Ghazālī (d. 505/1111) says in the same book, "science, whose knowledge is deemed fard kifāya (obligation of sufficiency), comprises every area which is indispensable for the welfare of this world..."<sup>14</sup> The Qur'an mentions many industries, terming them Allah's favour and bounty. In this respect, God says concerning Prophet Dawod or David, "... And We made the iron soft for him (commanding), 'Make thou coats of mail, balancing well ..." (Qur'an, Su. 34:10-11.) "It was We who taught him the making of coats of mail for your benefit, to guard you from each other's violence: Will ye then be grateful?" (Qur'an, Su. 21:80.)

Emphasising the importance of technology for Muslim daily life, the Qur'an mentions the technology of transportation, particularly the means which were popular

during the Prophet's time. It says, "Of the cattle are some for burden and some for meat..." (Qur'an, Su. 6:142.) The benefit of transportation is detailed in other verses which say,

And cattle He has created for you (men): from them ye derive warmth, and numerous benefits, and of their (meat) ye eat. And ye have a sense of pride and beauty in them as ye drive them home in the evening, and as ye lead them forth to pasture in the morning. And they carry your heavy loads to lands that you could not (otherwise) reach except with souls distressed: for your Lord is indeed Most Kind, Most Merciful. And (He has created) horses, mules, and donkeys, for you to ride and use for show ... (Qur'an, Su. 16:5-8.)

Technology is not only a result of knowledge or science but also of action. The Prophet says, "There cannot be an action unless the knowledge required by it is available with the person desirous of performing that action."<sup>15</sup> Muslims are told to be active, dynamic and competitive in a co-operative manner. Another hadith states, "If one of you sees something that is wrong, then let him set it right; first with his hand, and if he cannot, then with his tongue, and if he cannot, then with his heart, and that is the weakest of all possible forms of faith."<sup>16</sup> This hadith is an order to proper action and productivity. It is an invitation to a self-renewal and development to undertake more and better things in the future. Action as the way of salvation is also highlighted in the Qur'an. God says, "And say: 'Work (righteousness): soon will Allah observe your work, and His Messenger, and the Believers'" (Qur'an, Su. 9:105.) According to this verse, Muslim's action should be for the common good and to be performed with discipline and precision, and to produce a work of quality. In fact, in former times of Islam, workmen regarded their work as a prayer, an endeavour for God. Work was executed with the utmost care because it was for God. It was associated with belief.

As a primary requirement for scientific and technological development, professionalism (e. g., medicine, agriculture, engineering, etc.) is also encouraged by Islam. Yusuf Al-Qaradawi indicates that Islam requires professionalism or specialisation for two reasons: a) to widen economic sources, and b) to benefit people from various activities. In fact, Al-Qaradawi claims that the Prophet warned Muslims of the restrictions of only one activity such as agriculture. According to the Prophet, this

confinement would expose Muslims to various dangers such as defeat, humiliation, and loss of the faith.<sup>17</sup>

The exhortation of Islam to pursue knowledge and develop technology and professionalism is reflected in the earlier Muslims' contribution to various fields. This requirement, in addition to the established Islamic principles, were the factors that made Islamic civilisation a dominant power between the seventh and fifteenth centuries AD.

So far there is no conflict between Islam and science or technological development. On the other hand, Islamic sharī'ah has made it clear that science and technology should ultimately aim to fulfil the principles of Islam, one of which is al-Mas laḥa al-'Ama or public benefit. This means that if a technological development is necessary to achieve a particular sharī'ah principle, the provision of this technology becomes a priority and a responsibility of the Muslim state or authority. This responsibility is also applied to all social scales, from society to the individual. In this case, there is no offence against Islam if Muslims, at either the private or governmental level, seek help from non-Muslims in technological matters such as medicine, industry, agriculture or any area which has no connection with religion. Indeed, the Prophet sought help from some well disposed Jews in a war and gave them a share of the spoils.<sup>18</sup> Also earlier Muslims benefited from the science and technology of their neighbouring states which were later developed by Muslims. In one reported incident, the Ummaied Caliph al-Waleed bin 'Abdul Malik (86/703-98/715) ordered the governor of Medina, 'Umar bin 'Abdul 'Aziz, to reconstruct and expand the Prophet's mosque. After consulting Medina's jurists, he asked the Roman king to help 'Umar in this construction. The king sent 100 labourers and 40 camels loaded with construction material and equipment.<sup>19</sup> Furthermore, the Abbasied caliphs were active in Arabizing Persian and Roman books. This was very evident during the ruling period between the caliphs 'Abū Ja'afar 'al-Mansoūr and Haroūn 'al-Rashied and his son, 'al-Mamoūn. 'Al-Mamoūn (197/813-217/833) was very interested in Greek literature and encouraged Muslim scientists to benefit from it.<sup>20</sup> In his study of the historical relationships between Muslims and the



west, W. Montgomery Watt mentions that 'al-Mamou'n established an institution devoted to the translation of ancient Greek science and philosophy which assisted Muslims in producing meaningful original work in medicine and philosophy although these fields were regarded as foreign and from non-religious sciences.<sup>21</sup> Thus, the caliphate period of Harou'n 'al-Rashied and 'al-Mamou'n who supported financially secular sciences (i. e., engineering, medicine, industry, literature, and philosophy) came to be known as the scientific age of the Islamic state.

Regardless of the approval of Islam to benefit from non-Muslims in technical issues, it is most important that Muslims become self-sufficient in all fields. Islam has made it clear that careful selection and adaptation of foreign technological innovations or concepts are needed in order to absorb and integrate these concepts into a meaningful cultural system of Muslims. Otherwise, Muslim society would be in danger of being captured by the ideology of progress as a whole, with the effect that its Islamic principles would be compromised.

The traditional Muslim society did not need to import technical ideas from any non-Islamic context due to the technology it had developed within shari'ah teachings. Yet, when there was an urgent necessity for technological adoption, selectivity, care and conformity with shari'ah were the evaluation standard of this adoption. W. Montgomery Watt mentioned a story which might not be historically true yet has some significance. In 23/642, when Muslims occupied Alexandria, the capital of Egypt and a leading centre of the Hellenistic culture, they found the great library. The general in command wrote to the caliph asking what was to be done with the books in the library. The reply was, "if these books agree with the Qur'an, then they are unnecessary and may be destroyed; if they disagree, they are dangerous and should certainly be destroyed."<sup>22</sup>

As planning and design are value-laden activities, applying foreign planning and design concepts without selectivity and evaluation in regard to shari'ah in an Islamic context could affect the social principles of Islam. Planning and designing of the



physical environment of Muslims require the embodiment or integration of Islamic spiritual and moral teachings and practical elements of life. Therefore, there is an urgent need to root the principles of planning and design of the Muslim environment in the sources of these teachings, particularly the Qur'an. Such a need is indicated in the Qur'an itself, which says, "And we reveal the Scripture unto thee as an exposition of all things, and a guidance and a mercy and good tiding for those when surrendered (to Allah)" (Qur'an, Su. 16:89.) In fact, Mohamed Idrus stated in his discussion of the Islamic ideals of town planning that the companion and the first of the four righteous caliphs, 'Abū Bakker, once said, "even if I lose a camel's rein-string, I should find it in the Qur'an."<sup>23</sup> Mohamed Idrus relates the issue of using western design schemes as models instead of shari'ah sources for the present situation of Muslim architects who have western education, and non-Muslim architects and planners who practise in Islamic countries. The latter are granted by the local authorities to freely practise their skill and ideology and thus effect Muslim values through design and plans. He argues that if western planning and design concepts are needed for use in Muslim countries, they should only be used for comparison and with selectivity.<sup>24</sup>

Earlier Muslims were very selective when adopting foreign concepts relevant to the built environment. In her study of Islamic urban principles, Janet Abu-Lughod gives an example of this selectivity by saying that in most north African Roman cities to which Islam spread, wheeled vehicles had been replaced by camels and other beasts of burden. Although wheeled vehicles could be viewed as being more comfortable than camels or animal transportation, Muslims chose their own transportation system for economic reasons. The stone-covered Roman roads of these north African cities which also were expensive to maintain, were grassed.<sup>25</sup> In this solution Muslims aimed to reduce public expenditure which could be used in financing or providing other public services.

Moreover, the courtyard house which is to an extent a prototype of the traditional dwelling of Muslims, was originally developed by the Greeks and Romans. Miles Danby points out in his discussion of Islamic architecture that when the Islamic state

expanded to Classical regions, Muslims inhabited the courtyard house whose design was maintained as an ideal Muslim house. The concept of the courtyard house was accepted because it did not conflict with the principles of Islam. In fact, it was a plan which could easily be adapted to achieve a high degree of privacy as required by the Islamic way of life.<sup>26</sup> Also, in the analysis of the traditional Muslim house by Guy Petherbridge, reference is made to the tall tower-houses of southern Arabia, whose origin is pre-Islamic. These houses were inhabited by Muslims because they conformed to Islamic values.<sup>27</sup>

The Ummaied building style which is considered one of the oldest Islamic architectural trends, featured some Christian and Byzantine architectural and construction techniques originally found in Syria and the far east. In his description of the traditional city of Meknas, Morocco, Adhime Mohmmmed justifies this style to builders with a Christian or Byzantine architectural background who were brought from Syria and Egypt to various Islamic regions during the Ummaied caliphate. This foreign architectural adoption greatly contributed to creating the Ummaied architecture which continued to spread throughout Morocco and Spain until the beginning of the Abbasied era when other foreign architectural styles were introduced.<sup>28</sup> Saleh Al-Hathloul supports this in his research on the traditional rules that shaped the Arab-Muslim city by saying that the Abbasied new building trends were influenced by the architecture and construction methods of the ancient Babylonians and Assyrians of Iraq, where the Abbasied caliphate was established.<sup>29</sup>

On the larger scale, most Islamic cities were of non-Islamic origin. Islam came to an already existing world with different traditions and urban forms. As a result, Muslims inherited numerous Hellenistic, Persian, Byzantine and Arab tribal cities. In order to suit their needs and Islamic principles, Muslims modified the urban pattern and form of some of these cities while they kept urban features of others due to their compatibility with Islamic values. The modification started by the Prophet himself in Medina, whose urban characteristics were of tribal Arabian origin.<sup>30</sup> This continued later in cities such

as Damascus, Aleppo, Herat, and Jerusalem, which were primarily Roman and Hellenistic and characterised by an ancient highly-ordered city plan. Al-Hathloul stated in a similar research also conducted by him that although the plans of Damascus and Aleppo were gradually but radically altered into an irregular street pattern, some of the urban features of these cities, such as Jerusalem and Herat, were accepted.<sup>31</sup> The concept of large space (Agora) or the forum of Damascus became a socio-religious function. Placing a mosque at the centre of such a space and surrounding it by shops met the need for an open space that allowed worshipers to gather.<sup>32</sup> In other words, this space became the place where the unity of the Muslim community was enriched. This modification in addition to turning some streets into dead-ends, transformed Damascus from a public city into a private city with a socio-religious quality. Regardless of these changes, Muslims implemented the chief urban features of Hellenistic cities into newly established Muslim towns. For instance, the rectangular framework which was one of the basic characteristics of Hellenistic cities west of the Tigris seems to have influenced the planning of several Islamic cities such as Sfax (founded in 359/969) and Cairo, whose plans were also rectangular. Yet these plans were slightly modified by the cellular grouping of residential quarters that came to be developed concentrically around a central open space. The circular-radial-concentric plan was more adequate for some urban concepts (e. g., central mosque and suq) of Islam. This circular plan, which appeared as early as the Neolithic period and was typical of many Assyrian settlements, was in use in regions east of the Tigris river at the time of Arab conquest. This plan suited the Islamic concentric-planning concept that was developed in Medina in 3/622. The planning of Kūfa, Baṣra (19/638) and Baghdad (144/762) was undoubtedly influenced by this circular concept.<sup>33</sup>

It might be argued that early Muslims accepted and adopted architectural and urban concepts of other cultures because it was impossible for them to discard everything from the past and start with new styles of buildings and towns. Some of the above examples showed that not every architectural or urban concept was accepted and some of them were indeed modified. The accepted concepts supported some Islamic

principles such as privacy. Also these concepts were produced by ancient traditional societies, such as the medieval Christians and Jews, whose system of belief or religion was originally similar of that of Islam. The situation now is different. Unlike the societies of medieval Europe, modern western society is non-traditional and secular. Its technology is based on materialistic principles, some of which may not support traditional principles, not only those of Islam, but also of Christianity and Judaism. Many examples presented in Chapter 7 show how modern western concepts, particularly those related to housing design and planning, violate the traditional principles of Islam.

#### 4.3 SUMMARY AND CONCLUSION

The intensive social and technological changes which occurred in the Islamic world due to modernisation, are associated with an uncertainty about the compatibility of Islamic tradition with these changes. Therefore, this chapter presented the opinions of Islam in regard to two relevant matters: ideological and technological developments.

In terms of ideological development, Islam generally prohibits introducing any value or behaviour that is not from shari'ah. Similarly, it does not allow the adoption of a specific attitude, behaviour or social concept from a non-Muslim context. This prohibition is based on the grounds that Islam is a way of life and its shari'ah answers all behavioural and social requirements of Muslims. Yet Muslims can benefit from a non-Muslim culture by adopting behaviour or social ideas that do not constitute a contradiction with the principles of Islam. This benefit is allowed only if there is a vital need for it and if it will facilitate the achievement of social and physical principles of Islam.

In contrast to ideological development, Islam greatly encourages technological progress. Pursuing or adopting knowledge and science from any context is a religious duty. Still, this science or technology should be used for the benefit of mankind, solving technical problems and above all supporting Islamic principles.

With this chapter, the first part of the research has been completed. The next part investigates the planning and design factors of the contemporary housing environment that violate the social and physical principles of Islam. These factors are evident in most Muslim countries, particularly countries such as Saudi Arabia, where a mega-scale modernisation process took place. Jeddah, a major Saudi city that witnessed rapid and advanced social and physical changes, is used as a general example to present the violation factors.

CHAPTER **5**—

## JEDDAH'S MODERNISATION: VARIABLES AND CONSEQUENCES

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As a result of the massive modernisation process carried out by the government during the last three decades, Jeddah, a major seaport and a leading trading centre for Saudi Arabia, as well as the main gate to the holy cities of Mecca and Medina, has witnessed outstanding changes in its economy, culture and environment. The consequences are new social norms and patterns of behaviour and the introduction of new forms of housing embodying design and planning principles which violate the traditional principles of Islam.

This chapter describes the various factors which characterise the modernisation of Jeddah in three major areas: economic, socio-cultural, and physical environmental. The analysis of these factors assists in an understanding of the development process that has led to the creation of the modern housing forms of Jeddah.

The report published by the Ministry of Planning and titled, The Fourth Development Plan: 1985-1990, provides valuable information on the modernisation process of Saudi Arabia and its objectives and shortcomings. The unpublished reports produced by Sert Jackson International for the city master plan in 1979, also provide essential statistical and other data. The latter were used in an unpublished thesis by George Duncan, who was part of the Sert Jackson team during the production of the master plan. In his thesis, "The Planning and Development of the City of Jeddah, 1970-84", Duncan explains the technical process and associated surveys that were made in the preparation of the master plan. Also, the unpublished thesis, "The Development of Housing in Jeddah: Changes in Built Form from the Traditional to the Modern" by



Thamer Alharbi, included related data based on the survey he made in 1988. Alharbi discusses the urban and architectural characteristics of various old and new districts of Jeddah.

## **5.1 ECONOMIC AND TACTICAL CHANGES**

Saudi modernisation resulted from, and was fuelled by, the economic boom which occurred in the country especially during the 1970's. The large scale exploitation of oil in 1938, and the tremendous increase in oil prices in 1973, when Saudi Arabia became the largest oil exporting country, brought in enormous revenues and created a significant monetary surplus in the country (fig. 5.1-5.3). The government invested large proportions of this surplus in improving the living standards in the country. This is exhibited in the provision and improvement of basic infrastructures, particularly public services.

This dramatic economic growth, which triggered the most far-reaching transformation that has occurred in the nation's history, inspired the government in 1970 to establish five-year development plans. These plans were essential to determine the priorities of the country's needs. They were set up with the ultimate goal of creating a modern state. This meant a state with a modern advanced infrastructure and facilities for a society whose members could benefit from these facilities and improve their living standards, skills and productivity. Consequently, major Saudi cities such as Jeddah started to experience immense governmental expenditure on industrialisation and the introduction of Western technology, urbanisation, mass education, mass communication, rapid transportation systems and the creation of a complex bureaucracy. This modernisation is reminiscent of that which evolved in western Europe and north America between the seventeenth and nineteenth centuries. In his discussion of the compatibility of tradition with modernity, S. N. Eisenstadt defines this Western modernisation which in recent decades has spread to the rest of the world, as "the relatively recent emergence and acceleration of technological development which has

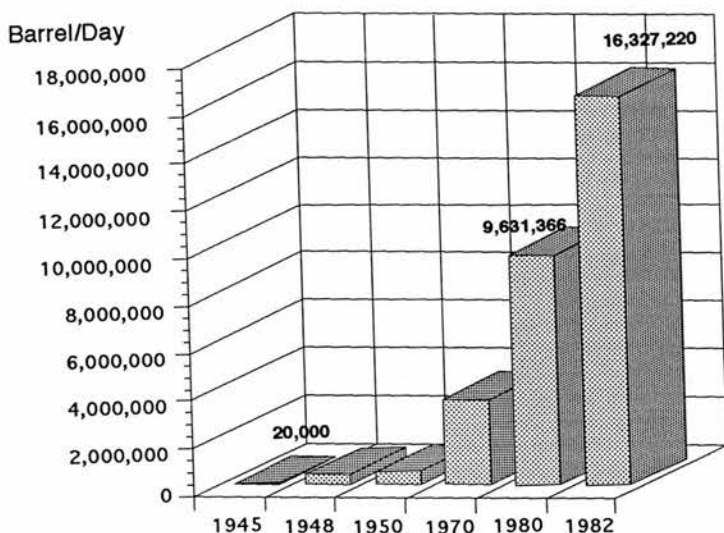


Fig. 5.1 The increase in oil production between 1945 and 1982.

(Adopted from George Orr Duncan, "The Planning and Development of the City of Jeddah, 1970-1984", unpublished Ph. D. Diss., U. of Durham, 1987, p. 404.)

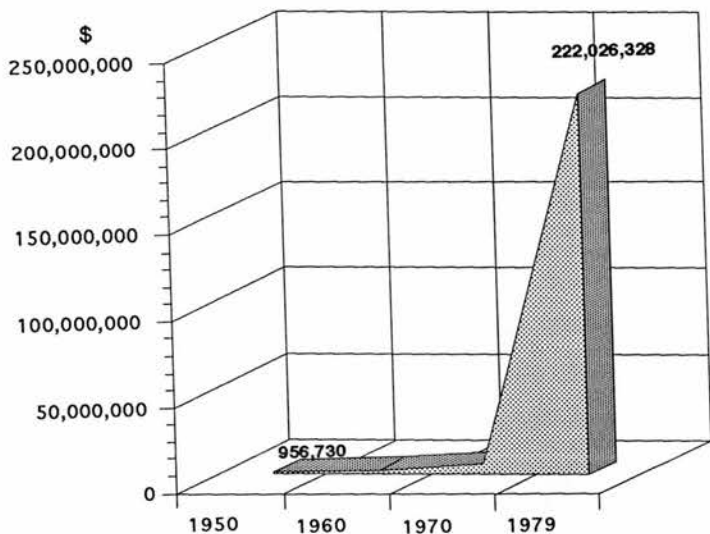


Fig. 5.2 The increase in daily oil revenues between 1950 and 1979.

(Adopted from "Aramco Handbook: Oil and the Middle East", 1968, and Ministry of Planning, "Third Development Plan: 1975-80", 1975.)

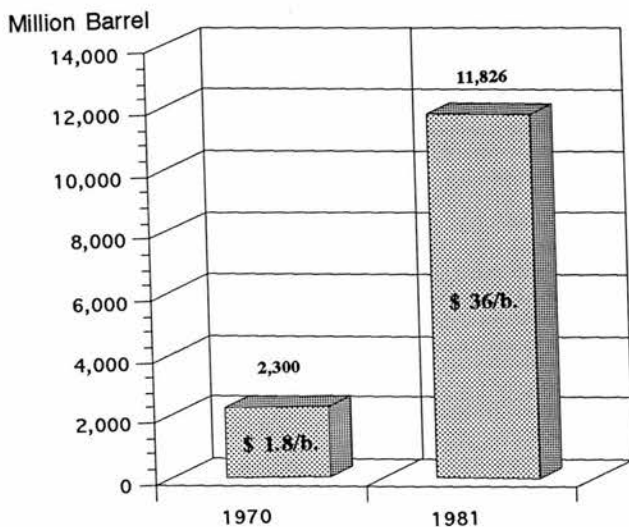


Fig. 5.3 The increase in annual oil revenues between 1970 and 1981.

(Adopted from G. Duncan, op. cit., pp. 38-39.)

increased resources output and has changed the level of economic, political and social sophistication and complexity."<sup>1</sup>

Comparing the features of Saudi modernisation with those earlier in the West, a question arises as to whether the Saudi development plans should aim to modernise the state and society by applying ready-made Western experience of modernisation regardless of its appropriateness. It appears at first that they should, because the time within which the financial return of oil would benefit the country was remarkably short and insufficient either to initiate independently a modernisation rooted in the local (Islamic) tradition from within the country itself, or to evaluate the imported modernisation in the light of Islamic tradition. Also, within that short time, there was a lack of the local skill necessary for development. Hence, there was no alternative other than reliance on a dominant Western-based technology. This was highlighted in the development plans themselves. For instance, the fourth development plan stated that, "the Kingdom recognises the advantages of technology and openly welcomes the latest technological development." And, "under the conditions prevailing in the Kingdom, the key elements for success are production, skill and the underlying technologies."<sup>2</sup>

The development plans did not intentionally aim to import the socio-cultural ingredients of Western modernisation. This was made clear in the first development plan which was approved in 1970 and its objective aimed to safeguard religious and moral values, increase prosperity, and raise living standards for Saudis. The second plan articulated these goals more explicitly although still in very broad terms. After realising the dramatic socio-cultural changes (or effect of westernization) the previous plans had brought about, the fourth development plan for 1985-1990 made it even clearer that, "from now on, the Ministry of Planning will give increased attention to the social aspects of development planning."<sup>3</sup> This fourth plan admitted that technology represented a socio-cultural challenge to the country. It stated that social disruption might be generated because of the socio-cultural change resulting from the earlier plans. Therefore, it aimed to minimise such disruption through careful planning and to offset

any harmful side effects of economic growth, by strengthening the cultural integrity of society and individuals. The plans also acknowledged that importing solutions from other cultures is not always appropriate to dealing with local socio-cultural issues.<sup>4</sup> Unlike the earlier plans, in which the traditional values to be protected were stated in very general terms (i. e. religious and moral values), the fourth plan specified and emphasised those values and morals which had been established by sharī'ah. The two primary goals stated in the plan are: "i) to safeguard Islamic values, duly observing, disseminating and confirming Allah's sharī'ah (God's Divine Law), and ii) to defend the faith and the nation, and to uphold security and social stability."<sup>5</sup>

In addition to physical and social developments, it seems that the Saudi economic boom had a religious dimension, noticeably at international level. The oil revenues helped the government to support Islamic institutions and projects financially (e. g., schools, universities, mosques, etc.) in less wealthy Islamic states. This is in addition to the great efforts made by the government in funding young religious scholars from throughout the Islamic world. Such efforts have had a significant impact in spreading Islam throughout the world, including the West. With the presence of the holy places and political stability and security in the country, this financial aid made Saudi Arabia the most religiously and politically influential power in the Muslim world.

## **5.2 SOCIO-CULTURAL CHANGES**

It is natural that technological, economic and urban developments lead to social changes, particularly in traditional societies such as the Saudi, but the case of Jeddah is almost unique in the speed with which its social changes occurred. Being foreign in origin, the modernisation of Jeddah has precipitated negative social consequences which are reflected in cultural and psychological effects manifesting in changing norms and new patterns of behaviour. As mentioned earlier, these consequences were never consciously intended by the development plans.









Although the socio-cultural changes of Jeddah are integrated, and some of them are the results of others, they can be analysed according to four separate social scales: society, neighbourhood, family and individual.

### **5.2.1 Society**


\* The notion of "being modern" or "modernity", which is publicised by the local mass media as a major goal of the development plans, has had a strong effect on society. Supported by technological innovations and great public and private wealth, the major target for society is to become 'developed' or 'modern'. This was strongly expressed in people's lifestyle and the concern for external appearance in everything, from house to car to clothes. Therefore, people turned to the West for ways of expressing prestige and to show off their modernity. This propensity to emulate Western lifestyles and the strong desire to acquire Western technology, has led to the acceptance of Western behaviour, manners, and attitudes.

Motivated by the example of Western culture, the modern Saudi life is oriented toward materialistic achievement. Status, success and wealth have become the objectives and the source of power that controls personal and professional relationships among many members of society.

As a result of these new materialistic norms, social interaction between people has declined (table 5.1). Although people live in one city and are integrated into a single network of social links and bonds, acting and interacting with each other, they feel inwardly isolated from one another. The new social relationships, sophisticated as they are, are mechanical and abstract compared to the more traditional relationships. Discussing this crisis of social disintegration in modern societies such as Jeddah's, Muhtar Holland, a contemporary Muslim theorist, states in his book, The Duties of Brotherhood in Islam, "The new type of social relationships, which are almost typical everywhere in the globe, result in alienation, personality disturbance, emotional distress

Principle	Degree of Change
Strong Social Interaction	
Strong Neighbourly Relationship	
Preservation of Neighbours' Rights	
Strong Family Ties	
Extended Family	
Strong Relationships with other	
Humility	
Balanced Wealth Consumption	

Key:

 High Change


 Moderate Change

Table 5.1 The degree of change in the social response to traditional principles of the social framework of Islam. The issue is that the majority of society members still believe in these principles, but the new daily life pattern which is dominated by formal activities (i. e. job) and materialistic goals as well as the built environment do not support this belief.

(Note: The scale used to determine the degree of change is very approximate as there are no statistical or numerical figures to use in behavioural scales such as this.)

and empty lives. Whatever the close social relationships are, they are far from the affection and the warm and brotherhood that Islam has called for."<sup>6</sup>

In a field visit to Jeddah in 1990, the author had a chance to discuss informally the issue of social disintegration with a number of householders in the new suburbs of the city. One of them observed that the new pattern of life was dominated by formal activities such as those associated with work which reduced the time and aspiration to socialise. Another pointed out that the contemporary built environment of the city incorporated barriers that isolated people from one another. He highlighted the traffic jams and the length of time that people spent on their journeys between home and work. These tiring trips encouraged people to isolate themselves in their homes at the end of the day.

\* Technology also plays a significant role in social disintegration in Jeddah. For example, television, video cassette recorders and telephones have become the dominant means of entertainment and socialisation.

The social impacts of westernization and technology are also shown in the wide gap between the upper and lower economic strata of society. Having concentrated most of the wealth around itself, the upper class is able to make use of the best living standards available in the city. Regardless of the increasingly numerous middle class, the socio-economic diversity in Jeddah has led to the creation of geographically defined groups with their own sub-cultures: the lower incomes in the south, middle incomes in the centre towards the north, and the higher incomes in the north and north-west. The appearance of such socio-economic divisions has the potential to create conflicts and a failure of communication between these groups.

Despite the tremendous change in the life-style and behaviour of people, the position of women in Jeddah or Saudi Arabia has not changed. In Saudi society, the privacy of woman is highly prized particularly in the middle and lower income groups. Yet there has been a noticeable change in the role of women in society. As a result of the



development plans, the Saudi woman has acquired an essential involvement in education and health provisions of the country. This is reflected in the increasing number of Saudi female students and teachers at all levels of education and among medical doctors and nurses.

### \* 5.2.2 Neighbourhood

The social disintegration that was discussed above also exists at the neighbourhood level. Neighbours, particularly in modern areas of Jeddah, are strangers to one another, lacking community spirit, many of them confining themselves to their homes and feeling no loyalty or responsibility for the creation of a neighbourly social environment.

### \* 5.2.3 Family

Due to modernisation and the introduction of social norms and a lifestyle which focuses on materialism and individualism, the ties between family members and relatives have reduced. Young Saudis now wish to have a home of their own and tend to form a house/wife family group, independent of the rest of their family. As a result, the traditional phenomenon of an extended family living together in one large house has almost disappeared. The new Saudi family now is nuclear, consisting of father, mother, and offspring.

### \* 5.2.4 Individual

Modernisation and the correlated increase of personal income have encouraged individualism. Because of the individualistic lifestyle which is represented in individuals striving for their own financial and occupational progress and personal needs, and a rhythm of daily life which is focused on and determined by this urge for economic development, social interaction between individuals has shrunk and common interests are no longer served. Individuals have therefore largely lost the need and desire to socialise, and their involvement in family and society affairs have been reduced. The sense of community and co-operation has deteriorated, and the frequency of exchanging

visits between friends and relatives has declined. There is no doubt that should these trends continue this will in time affect the solidarity of the entire society.

In his analysis of the psychological effects of modernisation on traditional societies, the Saudi sociologist, Abdulah Al-Kheraiji observes that modernisation has burdened the individual with a constant need to seek prestige.<sup>7</sup> The new Saudi is desperate to command the respect and admiration of the surrounding community or of other individuals through new values and behaviour. Many individuals in Jeddah nowadays try to get the recognition of others and express the desire for prestige not only by imitating Western behaviour in styles of eating, clothes, etc., but also by excessive personal spending on lifestyle such as housing, elaborate parties, and private education.<sup>8</sup>

Unfortunately, the psychological impact of modernity has been so deep that many of the new Saudi generation suffer from an emptiness of soul and a distorted perception of life. Abdul Mohsen Al-Rshoud, a well-known Saudi columnist, discusses this matter quoting a survey conducted by the religious Saudi magazine, Al-Da'wah, on how Saudis spend their free time. Al-Rshoud states that many of the Saudi individuals covered by the survey feel that life has become highly complex and yet monotonous. Thus, they escape to other individuals (friends) who share with them this feeling and waste time by such superficial activities as card playing. According to the survey, 80% of these individuals admit that they feel no responsibility towards their family and relatives, or even their jobs.<sup>9</sup>

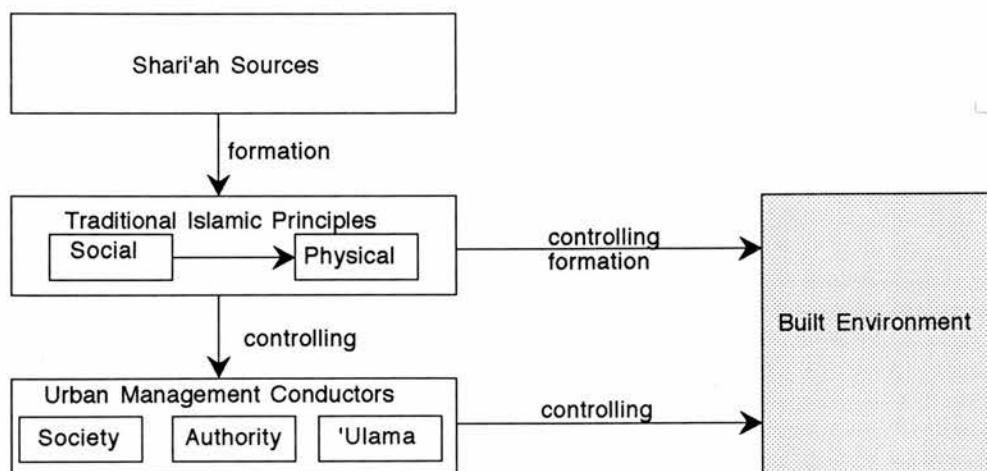
### **5.3 PHYSICAL ENVIRONMENTAL CHANGES: URBANISATION**

The most visible characteristic of the modernisation of Jeddah has been the rapid urbanisation of the city. The massive construction boom started in the early 1970's due to the economic growth of the country has transformed Jeddah into a metropolitan area. The city has grown from 314 km<sup>2</sup> in 1973 to 1,215 km<sup>2</sup> in 1979, a four-fold increase in less than a decade.<sup>10</sup> Influenced by government expenditure and intensive private construction, master plans for the whole city and its new areas have been set up to guide,

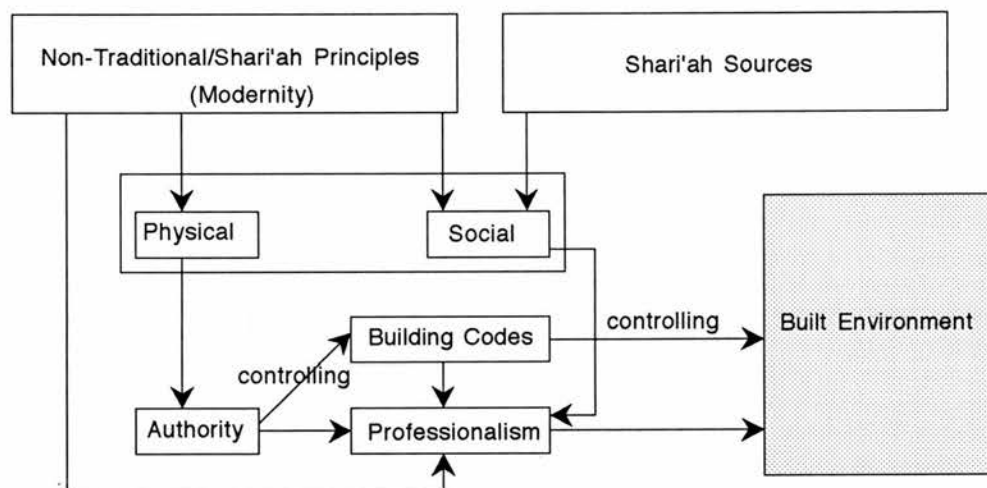
accommodate and control urban growth and to solve urban problems associated with this growth. As these plans were conceived by Western consultants and inspired by the universal urban trend of idolising modern life, these master plans introduced planning codes and building regulations of non-contextual origin (fig. 5.4).

Urban growth and the new planning affiliated with it have featured the replacement of traditional houses with high-rise commercial buildings built of new imported materials. Intimate vistas have been changed by the proliferation of highways and flyovers, detached villas and large apartment buildings, with a great provision of automobiles as the ever-present symbol of the mastery of modern planning. Traditional twisted streets have been widened and new road networks have been constructed. New residential settlements and subdivisions, shaped by Western zoning and land use regulations, have sprung up to satisfy the housing needs of the growing population. Resulting from this, the central traditional area has experienced a rush by its native inhabitants to escape to new suburban areas where a more spacious and modern residential environment was to be found.

Accordingly, the city of Jeddah not only started to lose its vernacular Arab-Muslim urban and architectural characteristics and identity, but also suffered from a physical dualism. An urban dualism exists in the city centre where traditional zigzagged alleys are cut by and opened up to wide straight avenues. A dualism of another form is reflected in the stark contrasts between modern high rise buildings of alien architectural styles and sophisticated technology planted in the middle of the traditional area where buildings of rich traditional architecture and cultural heritage exist. Also, new buildings are needlessly covered by elements like wooden screens and arches which are thought to be rooted in traditional architecture and which would give the buildings or districts a superficially traditional look.



### Traditional



### Contemporary

Fig. 5.4 Changes of the forces that control the built environment of Muslims: in the traditional environment the social and physical principles which have been formed by shari'ah sources (i. e. Qur'an and sunnah), directly controlled and shaped the built environment and influenced any decision made by environment managers (society, authority, and 'ulamma.) On the other hand, the contemporary environment is controlled by principles of modernity that are not rooted in shari'ah sources. These principles are manifested in building and planning regulations that are established by the authority and determine design concepts produced by professionals. These concepts, which also control and shape the environment, are also influenced by social principles of modernity (i. e. luxury, comfort, etc.) Society, as a whole, is influenced by both modernity and shari'ah sources. Yet modern norms such as materialism and individualism appear to have stronger effect on society than shari'ah sources. Society still believes in shari'ah sources, but the influence of this belief, when it comes to the environment, is weak comparing to the influence of modernity. It is weak due to the absence or limitation of any action that is derived from shari'ah.

### **5.3.1 Emergence of New Housing Patterns**

The urbanisation of Jeddah is marked by the emergence of new housing patterns which are represented in two dwelling types: apartments and villas. The apartment type was introduced in Jeddah in the 1960's to house foreign populations from other Arab countries. The villa type was also first introduced in the 1960's as suitable accommodation for high class Saudis, mainly traders and top governmental officials.<sup>11</sup> After the second economic boom of 1973, these types became popular and dominant (fig. 5.5). To illustrate this, in 1979 apartment housing represented 54.2% of the total dwellings of Jeddah in comparison to the villas with only 7.7%<sup>12</sup> (fig. 5.5-5.7). Yet, in the 1980's there was a predominance of villa dwellings over apartment type, particularly in the northern area of the city which is representative of the urban growth of the late 1970's and early 1980's. For example, in a northern district, there were 3,911 villa permits against 628 apartment permits in 1989. In a neighbouring district, the figure was 440 for villas against 290 for apartment buildings also in 1989.<sup>13</sup> This represents a considerable increase in villa over apartment housing.

The introduction and eventual dominance of apartment and villa housing was due to two groups of factors: main factors which are relevant to the shortage of housing that resulted from the high and rapid increase in population due to the contemporary economic growth, and contributing factors which include social exposure to other cultural contexts, practitioners, growth in personal income, and municipal building regulations.

#### **5.3.1.1 Main Factors: Shortage of Housing**

As is the case in most developing countries, the Saudi process of expeditious development did not take place without difficulties. The main problem was the sharp increase in housing demand in most major Saudi cities in the mid 1970's. This resulted from several factors connected with the modernisation process of the country. As a consequence, the government provided solutions that it was hoped would reduce this

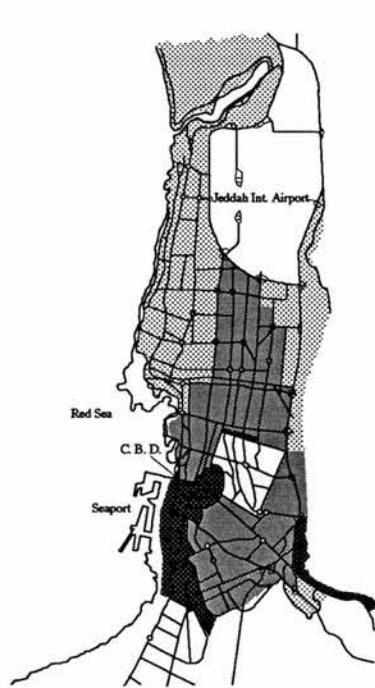


Fig. 5.5 Distribution of dominant housing types of Jeddah in 1990.

(Developed from Sert Jackson Int./Saudiconsult, Tech. Report No. 5, 1979, and Zaki Farsi, *Jeddah A-Z*, 1990.)

- Traditional (Arabic, shanties, cottages)
- Apartment
- Villa

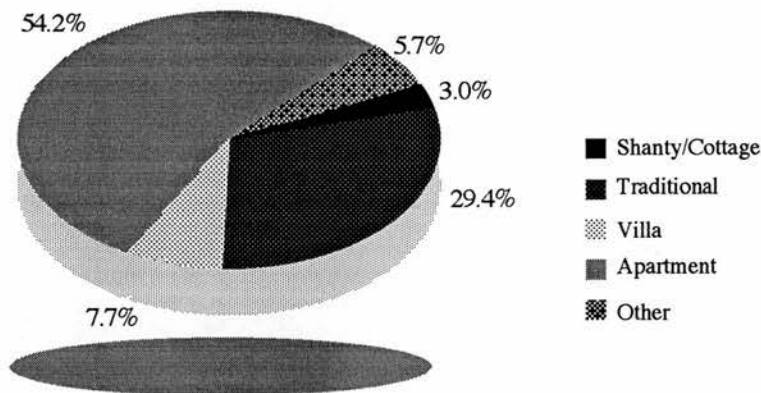


Fig. 5.6 Housing types in Jeddah in 1979.

(Source: Sert Jackson, op. cit., No. 7, 1979.)

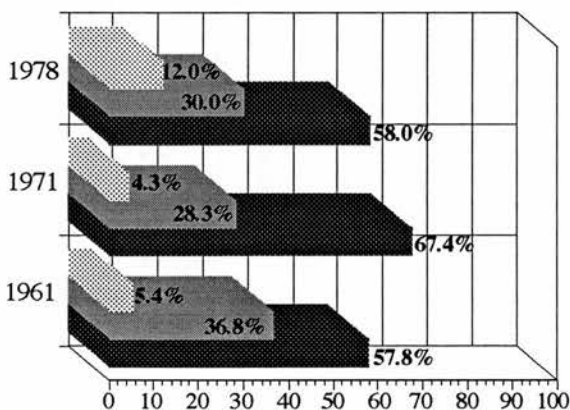


Fig. 5.7 Trend of houses built in 1961, 1971, and 1978.

(Developed from Sert Jackson, op. cit., No. 4, p. 54, and M. Farsi, "Arab Cities: Case Study of the City of Jeddah", Ph. D. Diss., Alexandria U., 1987, p. 146..")

- Villa
- Apartment
- Arabic Traditional & Shanty

increase in housing need. The following sections discuss these factors and governmental alternatives which have greatly contributed to the creation and dominance of the new housing forms of apartments and villas.

Population growth. Jeddah experienced a rapid growth in its population, especially of non-Saudis, during 1970's and mid 1980's. The tremendous increase in the national income due to the sharp rise in oil prices in 1973 provided job opportunities particularly in construction which encouraged large scale immigration from different parts of the world. Consequently, the city population grew remarkably from 404,600 inhabitants in 1971 to 915,800 in 1978, an increase of over 511,000 inhabitants in just seven years with an average increase of 73,000 annually or over 6000 inhabitants monthly (fig. 5.8). Such an increase was not envisaged by the master plan which estimated that the population of Jeddah would only grow to 800,000 inhabitants by 1991<sup>14</sup> (fig. 5.9). The non-Saudi population of Jeddah became 52.8% (483,550) of the city population in 1978 in comparison to 42.1% in 1971.<sup>15</sup> Most of these were young unskilled labourers with a low literacy rate who arrived to fill the labour shortage and participated in manual jobs mainly in construction. This immigration also included many Saudi families from other cities such as Mecca, Taif and Medina and surrounding rural areas who came to Jeddah seeking better job opportunities and living standards.

The increase in the city population led to a sharp increase in the need for housing for both foreign labour force and their families as well as natives. This need was also associated with a shortage in community facilities, transportation and infrastructure and an increase in land and building costs. In fact, these unexpected problems made it difficult to carry out the city master plan set up in 1971. Hence, another master plan was adopted in 1978 focusing on the population increase and its engendered housing and service shortfall.

Socio-cultural change (The split of the family). As previously stated, since the late 1960's the family structure in Jeddah has begun to change. A nuclear family type emerged as young Saudis increasingly favoured living independently after marriage.



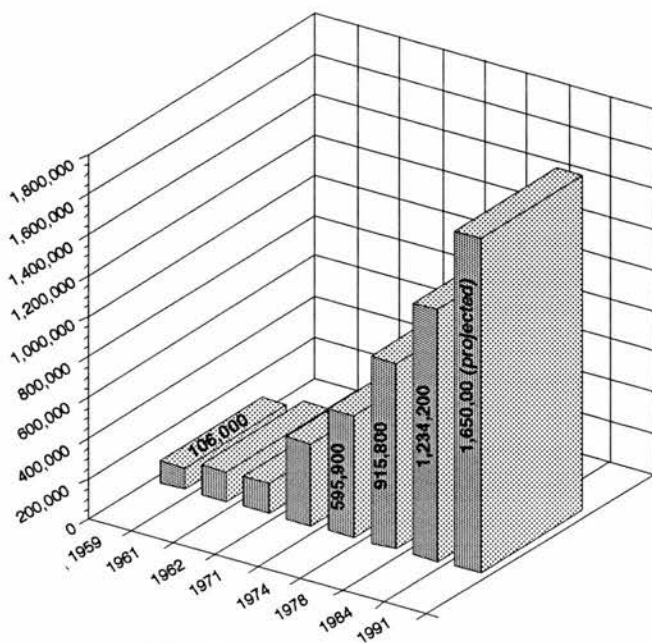


Fig. 5.8 Population growth in Jeddah since 1959.

(Adopted and developed from Sert Jackson Int./Saudiconsult, Technical Report No. 5, Vol. 1, p. 8, and M. S. Farsi, "Arabian Cities," unpublished Ph. D. Diss., Alexandria U., 1987, p. 173.)

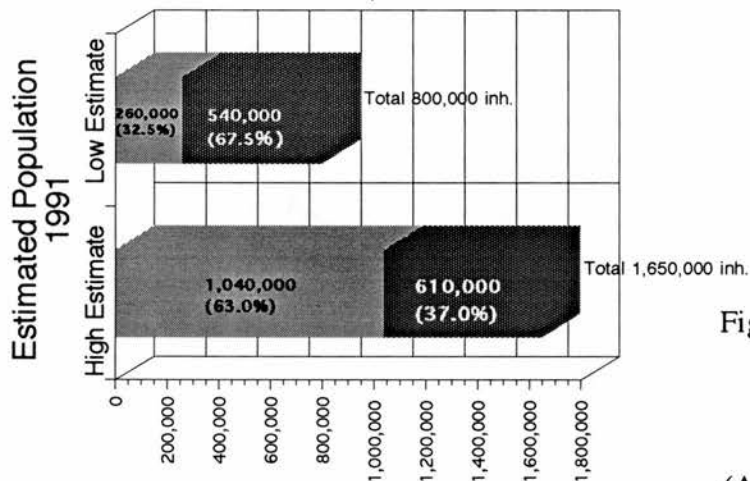
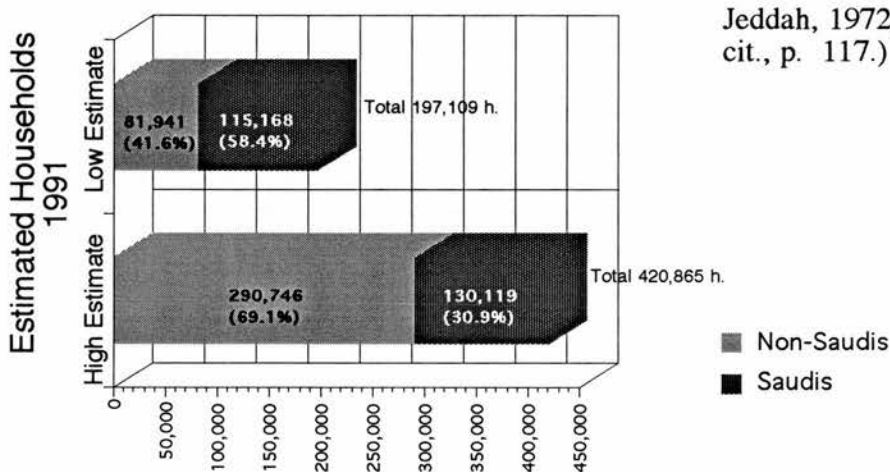


Fig. 5.9 Housing demand for Jeddah in 1991 as projected by RMJMP in 1971.

(Adopted from "RMJMP Alternative Urban Strategies", Jeddah, 1972, in G. Duncan, op. cit., p. 117.)



■ Non-Saudis  
■ Saudis

This trend intensified the existing problem of housing shortage as each family has its own need of a separate housing unit. As a result, the number of residential units in the form of villas and apartments has increased from 173,489 units in 1978 when the population was 915,800 inhabitants to 259,050 in 1984, when the population was 1,234,200.<sup>16</sup>

Demolishing of old houses. The rapid urban expansion of Jeddah has been coupled with a great need for more space for roads and public services. This necessitated demolishing many old dwellings in the city centre where sometimes entire residential quarters were razed. In turn, such demolition maximised the demand for more housing units to accommodate the inhabitants of the old houses.

Governmental solutions for housing shortage. Realising the seriousness of the housing shortage in major Saudi cities during 1970-75 and in order to remedy this shortage, the government adopted several ambitious initiatives aiming to:

- a. ease the demand for housing in a short period of time;
- b. enable every Saudi householder in the country to have a decent, safe and sanitary dwelling; and,
- c. increase house ownership.<sup>17</sup>

Therefore, the most significant attempts the government made were the construction of mega-scale public housing projects in main cities such as Jeddah and the establishment of the Real Estate Development Fund (REDF).

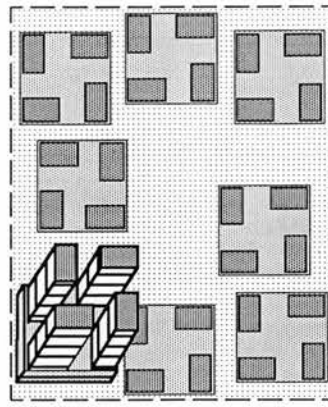
The idea of public housing was indeed initiated for the first time in Saudi Arabia by the Arabian American Oil Company (ARAMCO), who constructed housing compounds for its employees in the late 1940's. This encouraged the Saudi government, especially after transferring its offices from Jeddah and Mecca to Riyadh not only to build a housing project for its transferred employees in Riyadh, but also to consider a long-term

housing policy for the entire country in 1953. This policy was translated in 1970's in the construction of crash housing projects in the five major cities, including Jeddah.

In Jeddah, the crash housing project, carried out in record time (1977-79) by French contractors under the supervision of German consultants, aimed to accommodate the maximum possible number of people in the shortest time in the most economic way within a quality environment.<sup>18</sup> Thus, the project was designed to make provision for 1,930 families in a self-sufficient neighbourhood where walk-up and high rise apartment buildings would be integrated. It consisted of 1,936 apartment units distributed between 32 towers, each of which measures 40 x 48 m on plan. The towers were grouped into eight 100 x 100 m<sup>2</sup> clusters constructed on a podium of three storeys specified for commercial, office and parking uses. Above is constructed four residential towers of fifteen storeys each. Other facilities such as mosques, clinics, schools and municipal offices were distributed between the clusters. In terms of the residential units, each apartment covered an area of 220 m<sup>2</sup> including 3 bedrooms, reception room, living room, kitchen and 3 bathrooms, all with a Western style furniture and air conditioning. Pre-fabrication was used in the construction of the entire project mainly to achieve rapidity and high quality construction (fig. 5.10).

The introduction of the apartment type of housing by the crash programme was enhanced by another form of public housing, namely, compound housing. Since 1975 various governmental agencies and large private firms have constructed compounds for their employees. The design scheme of this dwelling pattern consisted of several blocks of residential units forming one or more neighbourhoods (fig. 5.11-5.12). Compound housing came in three types: luxury, semi-luxury and simple. The first was built for professionals or senior staff and made up of detached villas, each of which included 2-4 bedrooms with considerable amenities. The second, semi-luxury, compounds were built for technicians or semi-professionals and included villas and low-rise apartment buildings of a lower quality of construction, furniture and facilities than the luxury units. The simple compounds were portable or mobile homes rapidly prefabricated with an

Layout



Typical Floor Plan

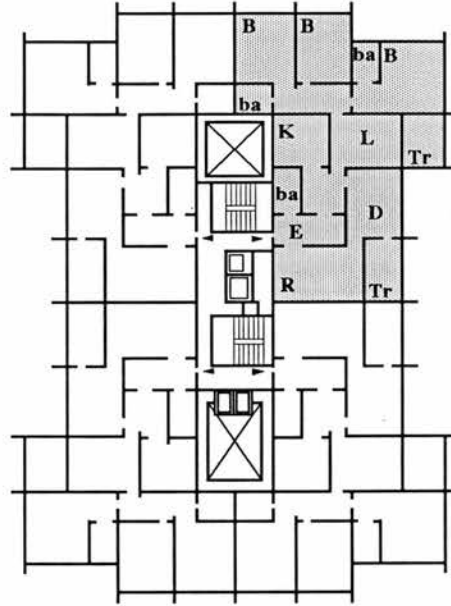


Fig. 5.10 The Rush Housing Project of Jeddah.

(Adopted and developed from Abdelmohsen Farahat and M. Cebeci, "A Housing Project: Intentions, Realities and Alternatives", Paper Abstracts of a Symposium on The Arab City: Its Character and Islamic Cultural Heritage, Madina, 1981, p. 309, Jamel Akbar, "Support for Courtyard Houses: Riyadh, Saudi Arabia", Masters Thesis, MIT, 1980, p. 23, and "Housing Projects of the Ministry of Housing and Public Works", Albenaa, No. 4, August/September, 1979, p. 76.)

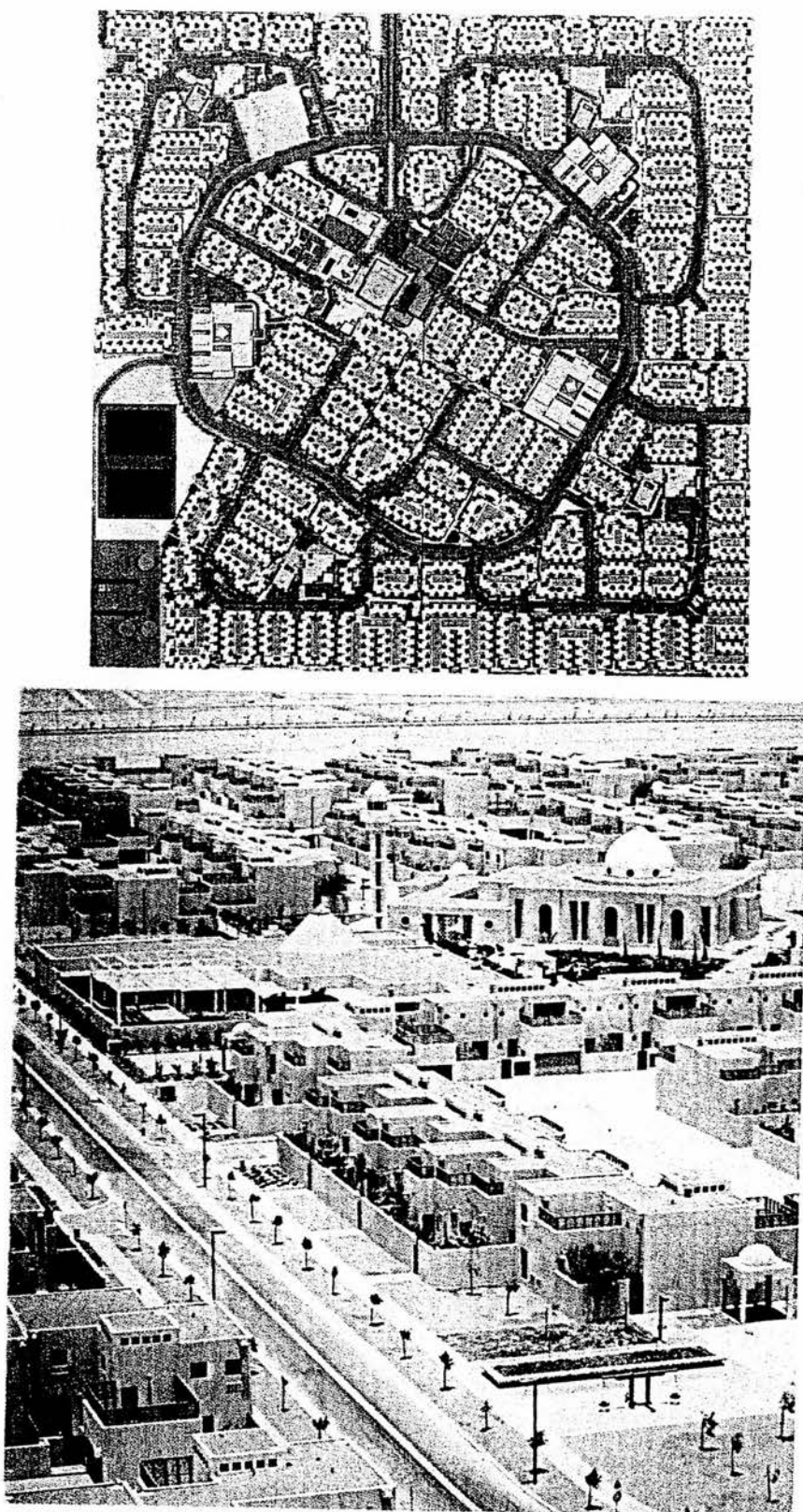


Fig. 5.11 A government compound built by the Ministry of Interior in 1982 for its employees and consisted of villa housing type.

(Source: Projects General Administration, Ministry of Interior, The Housing Project of the National Security Force: Jeddah, Ministry of Interior, 1985.)



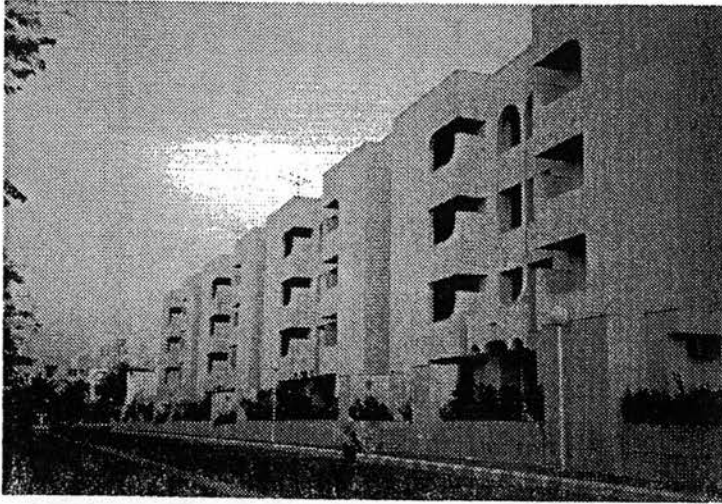
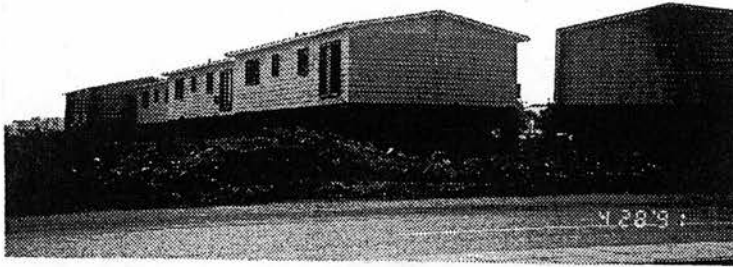


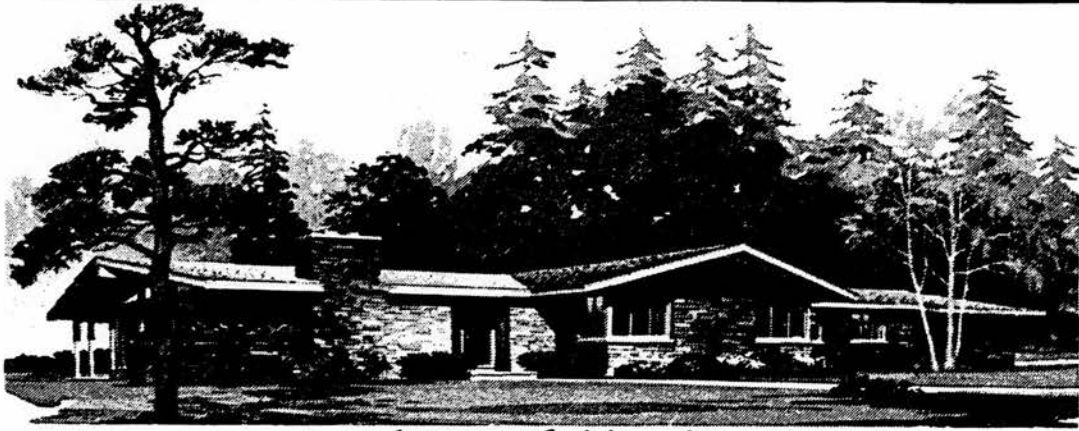
Fig. 5.12 Private compounds built for company employees and consisted of villa and apartment housing types.

inferior standard of services, and to accommodate a large number of low-income foreign, mostly single semi-skilled or unskilled labourers.<sup>19</sup>

✕ Publicised by the local mass media, the design concept and the Western atmosphere of living in the residential units of the crash and compound housing created an image of the ideal house for modern Saudis and became a symbol of urbanisation and modernisation (fig. 5.13). Consequently, many Saudis were captured by this image and attempted to adopt the design concept of these units as a norm for their dwellings.

In addition to the construction of crash housing projects, the government has established the Real Estate Development Fund (REDF) in 1975 to finance private housing and meet the urgent demand for housing as expeditiously as possible. The REDF provides up to 70% of the dwelling construction cost, with a maximum interest-free loan of SR. 300,000 (\$ 80,000) repayable over a 25 year period. In 1980, the REDF introduced a programme to encourage prompt repayment of private loans, whereby borrowers making instalment payments on time would receive a 20% discount, with an additional 10% discount if payment was made as a lump sum. The loan is restricted to a one-off offer and only for the Saudi borrower who does not own a private house but holds a parcel of land on which he or she intends to build.<sup>20</sup> The significant effect of the REDF was the escalation of the construction boom in major cities in the mid 1970's. Of the total of 506,000 housing units constructed between 1974-1985 by all housing sectors in the country, more than 75% were built through REDF<sup>21</sup> (fig. 5.14). Nevertheless, the rule that loans were only available to individuals who owned property increased the demand for land and rapidly inflated residential land prices. This forced many REDF beneficiaries of low and middle income to acquire inexpensive lands on the boundary of urban areas beyond utility networks and to suffer a long waiting period before basic services reached them. As a result, a leapfrog pattern of urban development enlarged most cities in a piece-meal, haphazard manner. The high costs of extending service networks were, and still are, among the major consequences of such irregular development.





## فلل كنـدا

### يسر شركة الجارودي للمباني

عرض أحدث التصاميم للفلل السكنية المتطورة والتي تمتاز بسرعة بنائها، وجمال تشطيبها بالسيراميك والرخام. صممت لتلائم أجواء المملكة، تصلح للمجمعات السكنية والسياحية والمصايف والاستراحات الخاصة.

صنعت من ألواح أسمنتية وجبسية تغطي هيكلها الحديدي، لها أرضية خرسانية، أسعارها مغرية خصوصاً للشركات السياحية، والمجمعات الاستشرية.

شاهدوا العينة بمقر الشركة، واختاروا مايناسبكم من (٥٠) تصميمًا موجوداً لدينا.

تلفون: ٤٤٨٤٤٠٠ - ٤٤٨٤٤٦٤ - فاكس: ٤٤٨١٩١٢ ص.ب: ٣٤٢٨ الرياض ١١٤٧١

### "Canadian Villas

Al-Jarody Company for buildings is pleased to introduce the latest developed and modern residential villas which are quick to build. These villas feature outstanding finishing of ceramic and marble. They have been designed to suit the Kingdom's conditions and all purposes of residential compounds and recreational resorts. They are manufactured of cement and gypsum panels with steel frame. They have concrete floors."

Fig. 5.13 This loose translation of a recent advertisement in a nation-wide Saudi newspaper reveals the type of image that is publicised for villa housing.

(Source: Asharq Al-Awsat, Feb. 16, 1990, p. 6.)

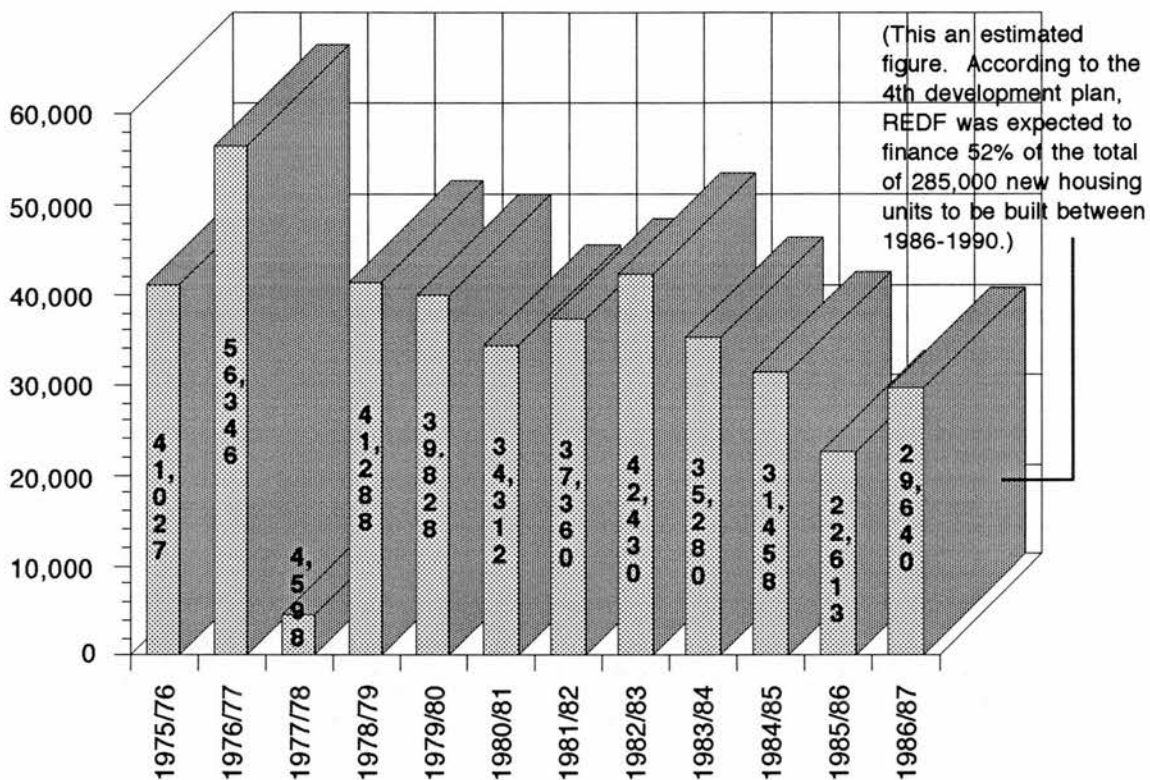


Fig. 5.14 Number of dwellings funded by the Real Estate Development Fund (REDF) since 1975.

(Adopted and developed from Al-Riyadh Newspaper, Riyadh, No. 7043, October 1987, p. 3, and Ministry of Planning, Fourth Development Plan: 1985-1990, Riyadh, 1985, p. 126.)

The role played by the REDF in the introduction of the design concept of modern villa and apartment housing is reflected in one of its regulations. REDF requests potential borrowers to submit a set of plans of the house for which the loan is offered. They will not be acceptable if they are not approved and stamped by the municipality. In turn, the municipality will not approve the design and offer a building permit which is also required by the REDF, if the design does not satisfy the municipal building codes (e. g., set backs.) They must also have been drawn up by a licensed practitioner. Both building codes and the architectural background of the practitioner, which are of a non-contextual origin, produce a design of either a villa or an apartment building.

#### **5.3.1.2 Contributory Factors**

The rapid spread of modern styles of villas and apartments in Jeddah also stemmed from other factors:

Exposure to other physical and cultural contexts. Saudis have become very well informed about the rest of the world because of their increased personal income and the availability of modern transportation which have allowed many of them to travel abroad for vacation, medical treatment, or study. The expansion of their knowledge of foreign culture and housing was also supported by the mass media. Television, radio, publication and press which are full of material on Western culture and environment have widened public knowledge of international lifestyle and played an important role in publicising and idealising Western culture and environment as symbols of urbanisation and modernisation. As a result, many native Saudis have become fascinated with Western urban and architectural forms.

The foreign population in Jeddah has also influenced the habits of the inhabitants and their perception of house environment. Many non-Saudis lived in houses especially built for them and designed to suit their culture. The fourth development plan set up in 1985 admitted that the exposure to foreign contexts through non-Saudi workers, mass media and travel, resulted in most Saudis being directly or indirectly acquainted with

many foreign cultures and that the majority of Saudi urban population had become affluent by international standards.<sup>22</sup> Exposure to foreign influence along with the booming economy has allowed people to dream of an easier life. They wanted the kind of homes they were seeing in movies and magazines, complete with attractive furniture and all of the benefits of 20th century technology.

\* Increase in personal income. Saudi personal income more than quadrupled between 1968 and 1977<sup>23</sup> and reached its highest level in 1982 when the average individual annual income became \$ 13,354.<sup>24</sup> This created a sharp rise in demand for better living standards and improved services particularly among the higher income group. New housing had to meet new requirements in hygiene, safety, comfort as well as in luxury or prestige.<sup>25</sup> This was reflected in a survey made by Thamer Hamdan Alharbi in his unpublished research on physical characteristics of the contemporary built environment of Jeddah in 1988. Alharbi found that 65.5% of the householders who responded to his survey had moved from one neighbourhood to another in a search for better accommodation with a design that satisfied their more sophisticated needs (e. g., for more and larger spaces and different spatial arrangements.)<sup>25</sup>

Professional practitioners. The increase in construction resulted from the growing demand for housing in Jeddah, together with the absence of well trained Saudi architects, created an urgent need for foreign designers. This led to the involvement of young unqualified designers and other professionals such as draftsmen, surveyors, purveyors of ready-made designs, and civil engineers as well as the establishment of many unlicensed design offices. The unreliability of these practitioners was aggravated by their unfamiliarity with shari'ah and the traditional background of the people for whom they were designing. A significant gap grew between Saudi users and these foreign practitioners who designed houses for them with two misconceptions in their minds as Saleh Al-Hathloul pointed out in his analysis of the contemporary urban growth of Saudi Arabia. These were: a) that the local lifestyle and culture was similar to those of the foreign practitioners, and/or, b) that the local lifestyle and culture would

change with the passage of time and thus the design would become suitable in the long run.<sup>26</sup>

\* Hence, these practitioners followed the cultural norms and architectural trends of their own countries. Most, if not all of them, were also concerned with specific artistic standards that were rooted in contemporary Western architectural movements (Bauhaus, cubism, neo-classism, etc.) Such an inadequate architectural imitation was enhanced by municipal requirements such as that for setbacks, which practitioners aimed to meet in their design. Furthermore, the speed and scale of the construction in Jeddah as well as the over-riding desire to make maximum profit did not offer practitioners enough time to concentrate on an understanding of the Islamic tradition specific to Jeddah. They therefore turned to easier methods of mass-production design. In fact, some practitioners of Arab nationality brought with them ready-made designs of houses of international styles to be built in Jeddah. In a survey made by Osama Hussien Al-Mansouri included in his study of the relationship between the designer and contractor in Saudi Arabia, 46% of designers who responded to the survey admitted having mass-produced repetitive designs.<sup>27</sup>

\* Owners share a responsibility for the type of architecture foreign designers produce and for its effect on design practice in Jeddah. Those who benefited from the REDF preferred to spend money on construction rather than on design. As practitioners were not fairly paid, they tended to minimise the cost of design by following the methods mentioned above such as replication. This means that owners did not participate in the design. According to Alharbi's survey, 62.8% of apartment owners who responded to the survey were not satisfied with the design of their dwelling due to their non-involvement in the design process. They were, accordingly, forced to modify the design during or shortly before construction.<sup>28</sup> On the other hand, good or qualified designers who did not make design copies, charged very high prices, and were consequently unpopular. They were limited to the high income class who wanted sophisticated, over-ambitious and pretentious designs that reflected their new economic and social status.

The local architectural education programmes also played a vital role in the introduction of new housing patterns. Aiming to create architects with an internationally accepted standard of architectural education, these programmes adopted Western concepts of design and teaching. Resulting from this, local architecture graduates applied what they had learned and followed the foreign architectural trends that had been established in the city.

\* Municipal building regulations. The oil revenues and the resulting urban growth created a governmental practice of using decrees, instructions and regulations to standardise and manage this growth. Meanwhile, the speed of growth did not provide the time for a natural evolutionary process to develop within which new planning and building rules could be set up and tested locally. Therefore, municipal authorities looked to Western industrialised nations to seek help in the production of comprehensive planning, master plans and building codes. They thought that these foreign planning concepts were practical and safe because they had already been implemented and had succeeded in the West. Such a point of view was encouraged by overseas consultants and technical advisers who came to provide master plans and building regulations.

Accordingly, the entire urban pattern of Jeddah was influenced by the master plans of the 1970's that institutionalised the grid iron as the pattern to follow in the planning of Jeddah, particularly to favour the motor car. The improvement in living standards was associated with a growing need for transportation. The number of vehicles in Jeddah has increased from 48 vehicles/1000 persons in 1971 to 120 in 1978, and the predicted figure for 1990 was 250.<sup>29</sup> Such a rapid increase in car ownership was recognised in the master plan set up by Robert Matthew, Johnson-Marshall and Partners in 1971. Two of the major objectives of this master plan were to provide an adequate road network at city and local level, and to encourage the development of a proportional public transport system in order to assist in achieving a balanced choice between public and private transport.<sup>30</sup> The great emphasis on motor vehicle traffic by



the master plan as the only means for transportation has led to a complicated and rigid grid-iron pattern of wide, long straight streets, bridges and flyovers which, in the final analysis, did not even succeed in solving traffic problems. This pattern of streets has resulted in rectangular or square residential lots and blocks (fig. 5.15).

In order to control the urban growth of the city by balancing residential density and housing types in response to population density, thus maintaining an adequate distribution of facilities, the building code of minimum lot size was introduced in the master plan. The minimum size of an individual plot was 400-600 m<sup>2</sup>, while the minimum frontage of such a plot was 20 m and its minimum depth was 20-30 m. The other building rule concerned the floor area ratio. This rule aimed to control urban growth, population density, and building volume by permitting 40-60% building coverage of the plot.<sup>31</sup> The right application of this rule was assured by another building rule: the setbacks. This required the building to be set off the street by at least 1/3-1/5 of the street width or a minimum of 4 m. The other sides of the building should be set back from the property edges at least 2m, or 3m if a balcony was provided. In order to guarantee the implementation of these rules and thus achieve the master plan objectives, the city was divided into districts with regard to certain codes of building height, coverage and number of units. For instance, there were districts where no more than two-storey dwellings with a plot coverage of 40% consisting of one residential unit (a villa) was allowed. Other districts were regulated for two-or three-storey buildings each of which included several residential units (apartments.) These building codes and urban residential zoning automatically made villas and apartments as the two basic housing models of Jeddah.

Because of the urban growth beyond the boundary proposed by the RMJM & P's master plan, increased demand for housing and public services, and the need to solve the problems emerged in various areas due to the quick solutions provided by this master plan, another master plan was established in 1980 by Sert Jackson Int./SaudConsult to



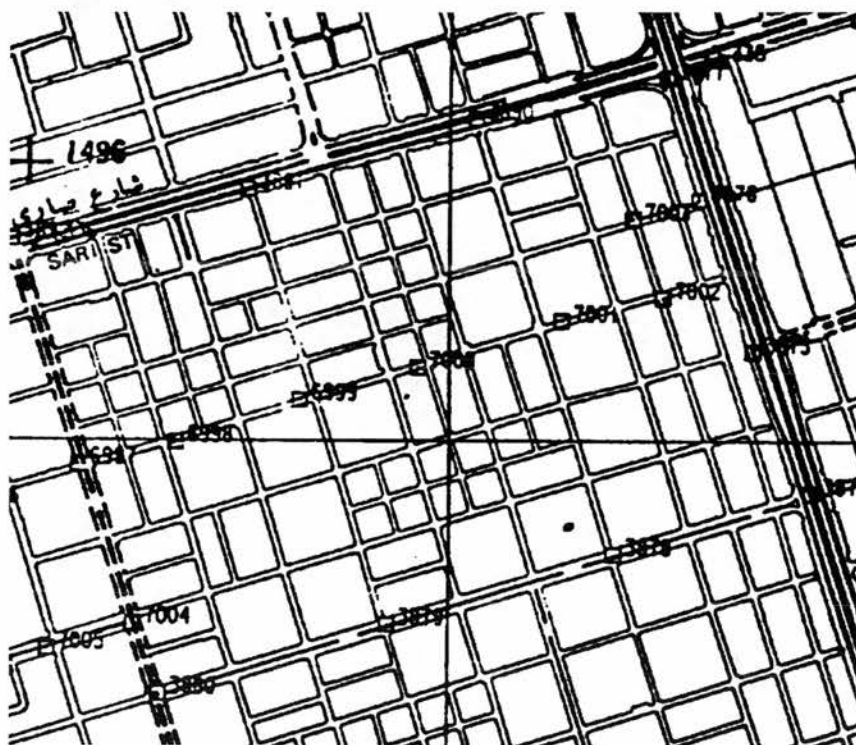


Fig. 5.15 Various plans of new districts show the grid-iron subdivision that is applied throughout the city.

(Plans from Zaki M. A. Farsi, *Jeddah A to Z*, Jeddah, Al-Madenah Publishing and Printing Co., 1988, pp. 34-35, and G. Duncan, op. cit., p. 325.)

re-plan and update the earlier plan. Yet this master plan followed almost exactly the same planning principles of the first.

#### **5.4 SUMMARY AND CONCLUSION**

The Saudi modernisation process caused by the economic growth that followed oil exploitation and price increases has led to sudden and radical changes in the society and built environment of Jeddah. Socio-culturally, the society of Jeddah has gained new cultural norms and values most of which are materialistically oriented. This is exhibited in the westernization of lifestyle and reduction of social and family relationships.

The city has experienced rapid urbanisation. The most significant feature of this development has been the introduction, then dominance, of new housing forms represented in villa and apartment buildings. These dwelling types emerged essentially because of the shortage of housing that resulted from high population growth, increases in personal income and a rise in the proportion of nuclear families, and governmental subsidies that supported the construction of such dwellings. The expansion of the average Saudi's familiarity with foreign cultures and built environments has accentuated the attractiveness of these housing forms. Design practitioners and municipal building regulations of Western origin share the responsibility for the dominance of these forms.

The next chapter describes the architectural and urban features of each of the new housing forms. Some of these characteristics lead to violations of traditional Islamic social and physical principles. The nature of these violations is discussed in Chapter 7.

CHAPTER **6**—

## PLANNING AND DESIGN CHARACTERISTICS OF JEDDAH'S NEW HOUSING PATTERNS

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The main purpose of this chapter is to provide insight into the planning and design features of Jeddah's housing types that have spread throughout the city during the Saudi modernisation process of the 1970's. It focuses on the dominant types represented by villas and apartment buildings occupied by middle-income Saudis and located in the northern part of the city. The chapter starts with an introductory discussion of basic urban aspects of Jeddah's residential areas. This is followed by a detailed description of the physical characteristics of the new apartments and villas.

### 6.1 INTRODUCTION TO JEDDAH'S HOUSING

Representing 64% of the total metropolitan area of the city, the residential areas of Jeddah consist of different types of dwellings exhibiting various cultural and physical qualities,<sup>1</sup> from shanties occupied by poor African and Arab immigrants, to near-palaces of imaginative architecture and lavish lifestyle constructed by wealthy Saudis (figs. 6.1-6.3).

Houses in Jeddah are distributed by type, quality and height of building. The traditional low-income housing is found in the central area which was surrounded by an ancient fortification wall until four decades ago. Other low-income dwellings exist in southern districts such as al-Sabeel and al-Qurayat, where the city harbour, oil refinery, other industries and warehousing constructions are located. These dwellings demonstrate the poor physical and social conditions, which prevail in the area. Many of them are built from wooden and aluminium sheeting sometimes reinforced with cement bricks. Around the city centre, there are districts such as al-Rowais, Oniacish and Bani-Malik dominated by 4-8 storey apartment buildings and occupied by a variety of

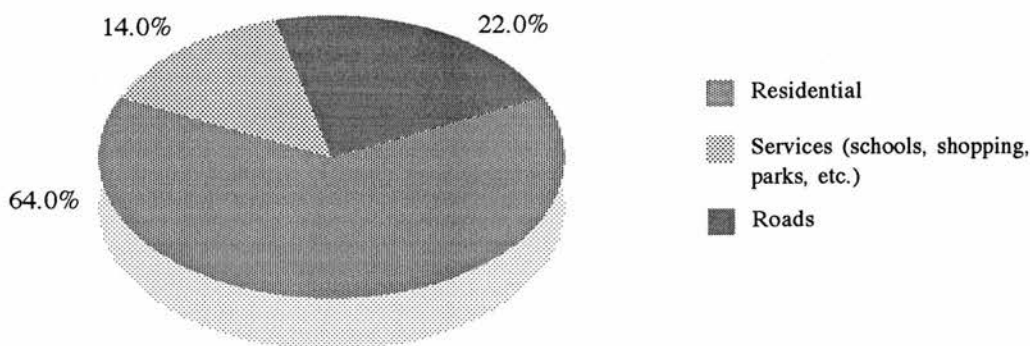


Fig. 6.1 Percentages of land uses of the built area of Jeddah in 1978.

(Adopted from Sert Jackson Int., Technical Report No. 5, Vol. 1, 1979.)

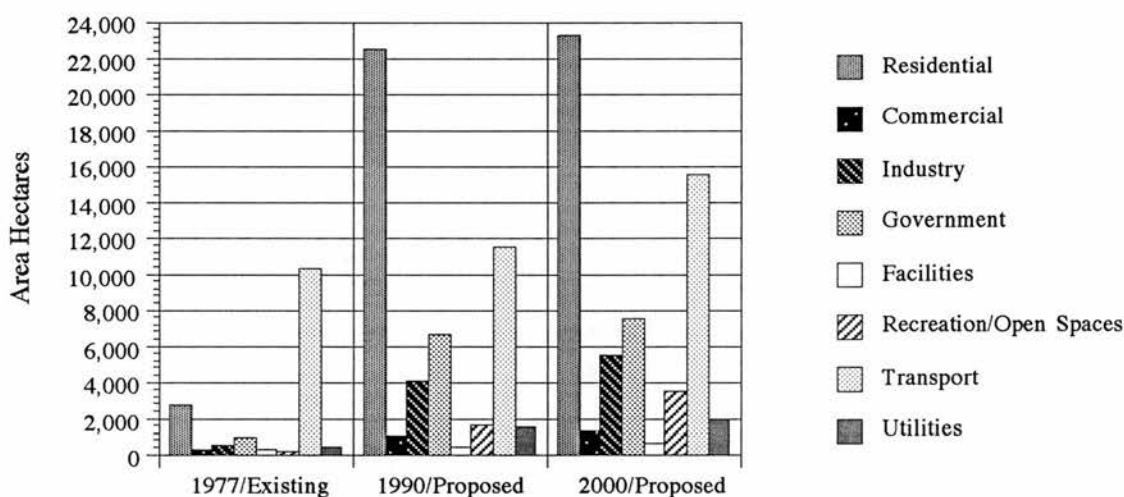


Fig. 6.2 Existing and proposed land use by sector.

(Adopted from Sert Jackson, "Revision and Updating of the Existing Master Plan", 1980.)

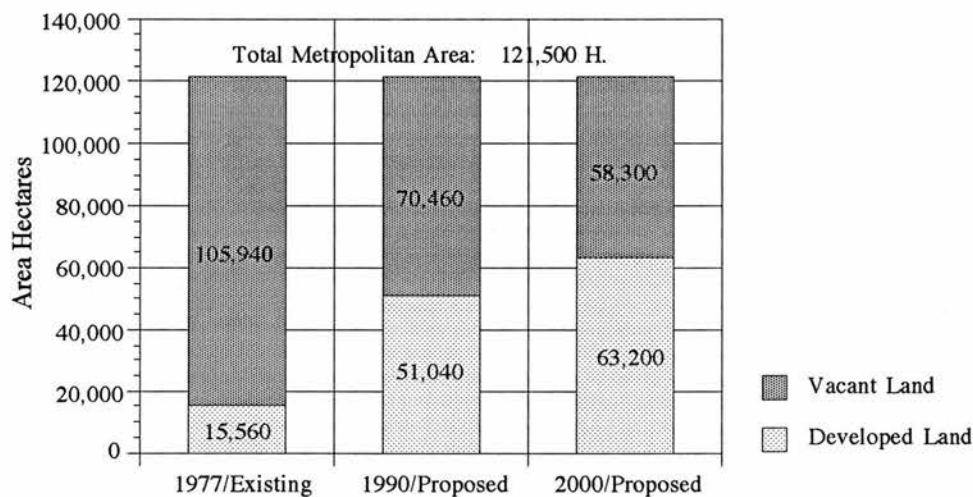


Fig. 6.3 Existing and proposed developed and vacant lands.

(Adopted from Ibid.)

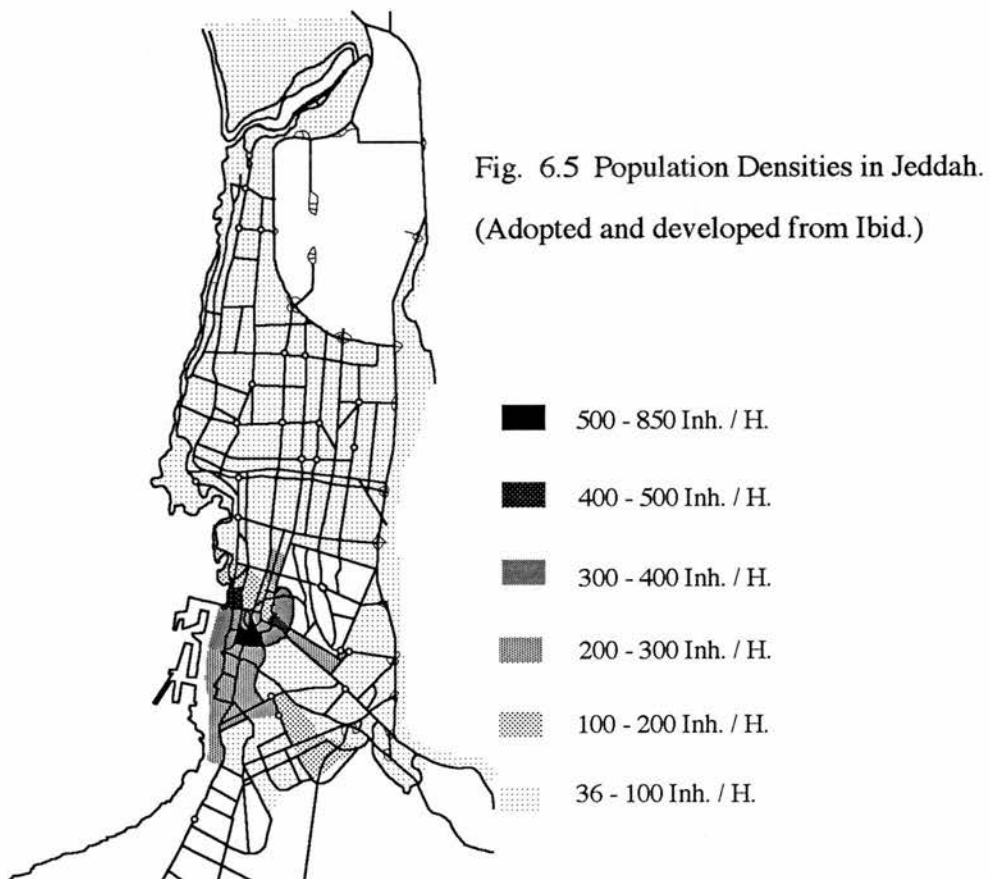
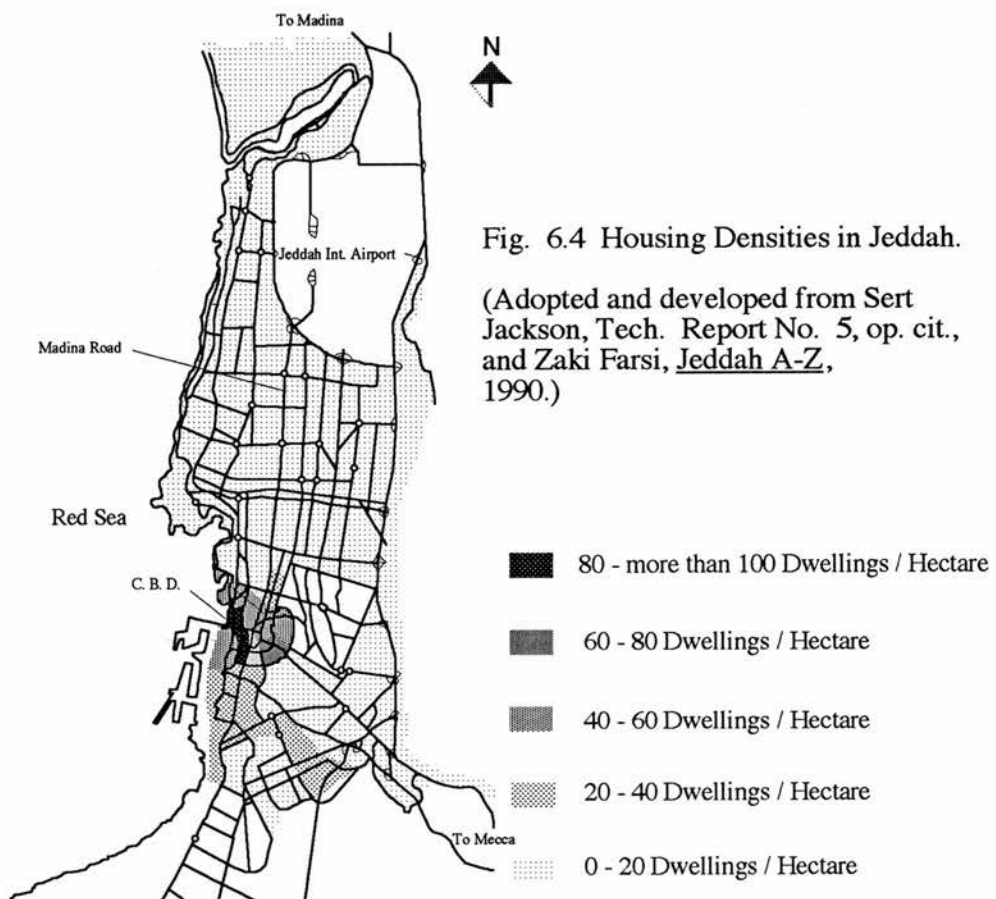
different income groups. These districts represent the older urban expansion that occurred immediately outside the city walls during the 1950's and 1960's. The districts located to the south-east of the city centre and along Mecca Road, which runs from the centre south-eastwards toward Mecca, include various housing types. These vary from high-rise apartment buildings to single or two-story villas, the majority being built in the 1960's and early 1970's. They are mostly occupied by low and middle income residents. The newer villas and apartments are concentrated in the far northern districts and illustrate the contemporary urban development which has resulted from the adoption of a grid pattern with regular plot shapes. However, recent factors have oriented the city's growth north-eastwards, where there is ready availability of low-price plots, rather than northwards where the municipality's intention was to control growth within a northern limit set in 1983.

Dwelling densities range from 80 to over 150 dwellings/hectare in the old city and its surrounding districts, to only 4-20 dwellings/hectare in the northern suburbs. The highest population density of 500-800 inhabitants/hectare exists also in the city centre and the surrounding areas. This density gradually decreases until it reaches its lowest (36-100 inhabitants/hectare) in the north (figs. 6.4-6.5).

## **6.2 JEDDAH'S MODERN MIDDLE-INCOME PRIVATE HOUSING**

As previously stated, the aim of this chapter is to explore the design and planning characteristics of Jeddah's new housing patterns of villas and apartments. The analysis will concentrate on the dwellings which are located in the north of Jeddah and designed for and constructed, owned and occupied by middle-income Saudis (fig. 6.6). There are two reasons for this concentration:

The north of Jeddah represents the general trend of the city's urban growth. Indeed, the southern area is not favoured by middle and high income people due to the location there of many unattractive elements (e. g., seaport, warehousing, petroleum refinery, industrial area, and steel rolling plants.) As a result, the northern and to some extent





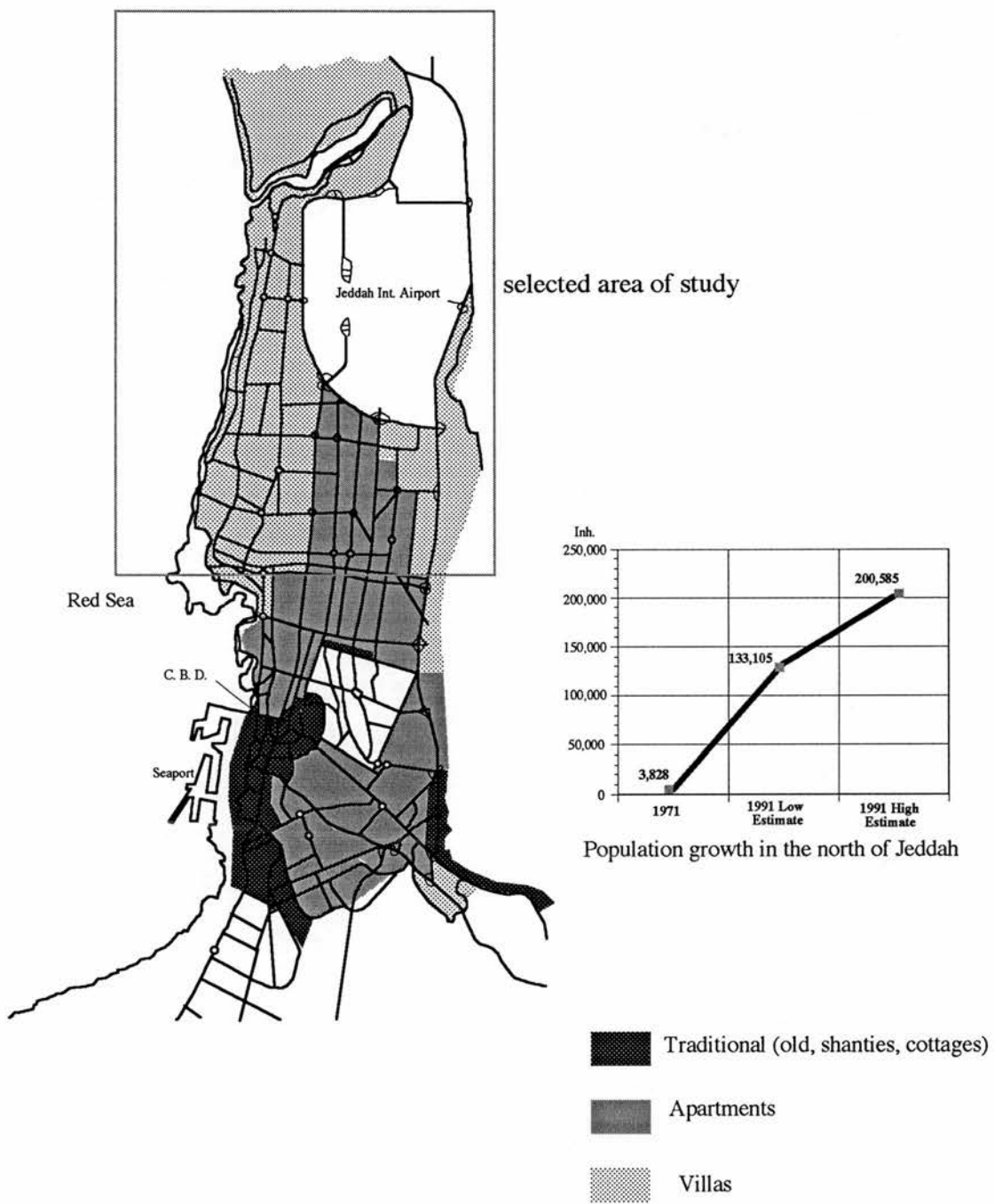


Fig. 6.6 The north of Jeddah represents the contemporary urban growth of the city where most new housing patterns and population concentrate.

(Developed and adopted from Sert Jackson Int., Tech. Report No. 5, op. cit., RMJM, "Jeddah North Action Area", 1975, and Z. Farsi, op. cit.)

eastern areas of the city have become the quality area, where high and middle income classes predominate. In contrast with the southern lower income districts, those in the north have attracted more attention from municipal authorities by the development of coastal corniches and the opening up of new wide tree-lined avenues. Urban growth to the north was also accelerated by the need to re-house people who had been evicted as a result of the construction of roads and bridges built to solve the pressing traffic problems in the south. A survey by Thamer Alharbi in 1988 revealed that 55.2% of the Saudi population lived in the north.<sup>2</sup>

The other reason is that the middle-income class dominates Jeddah's socio-economic structure. According to another survey done by Sert Jackson International for the city's master plan, 54.7% of Jeddah's households fall into the middle-income group, who earned S. R. 2000-5000 monthly in 1979.<sup>3</sup> This percentage was only 4.0% in 1971 (figs. 6.7-6.8). To illustrate further the substantial preference of middle-income Saudis for apartment and villa dwellings, another survey, also carried out by Sert Jackson, established that in 1978 even more than 64% of them lived in apartments with more than 16% preferring villas.<sup>4</sup>

### **6.2.1 Urban Layout**

The layout of Jeddah's new residential area is dominated by a rectangular grid-iron block pattern with rectilinear streets of variety of widths (12-60 m or more), their plots backing in to those of the next straight streets making neighbourhoods almost indistinguishable from one another (fig. 6.9). Each district or neighbourhood is subdivided into blocks surrounded by streets. In villa districts, the average size of each block measures 50 x 100 to 50 x 400 m divided into lots of an average size of 25 x 25m each. In apartment districts, the average size of a block is 60 x 80 to 60 x 200 m with an average plot size of 30 x 20 m each.

(Adopted from Ibid.)

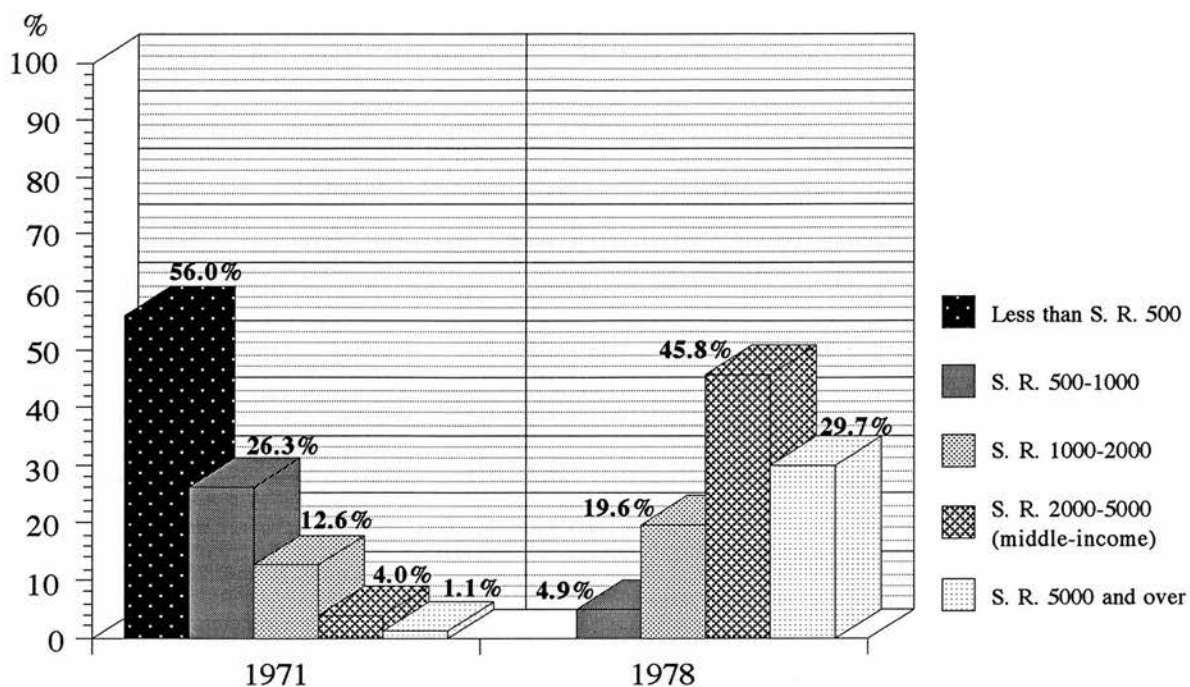


Fig. 6.7 Change of socio-income groups between 1971 and 1978. (note the disappearance of the lowest group in 1978.)

(Adopted from Sert Jackson Int., Technical Report No. 5, Vol. 3, 1980.)

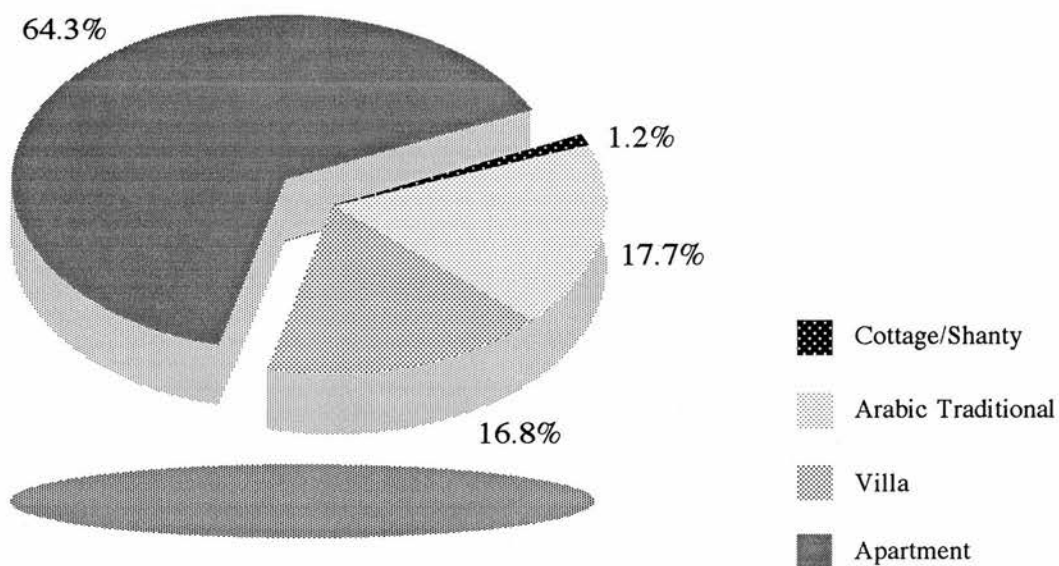


Fig. 6.8 Housing types inhabited by middle-income Saudis in 1978.

(Adopted from Ibid.)

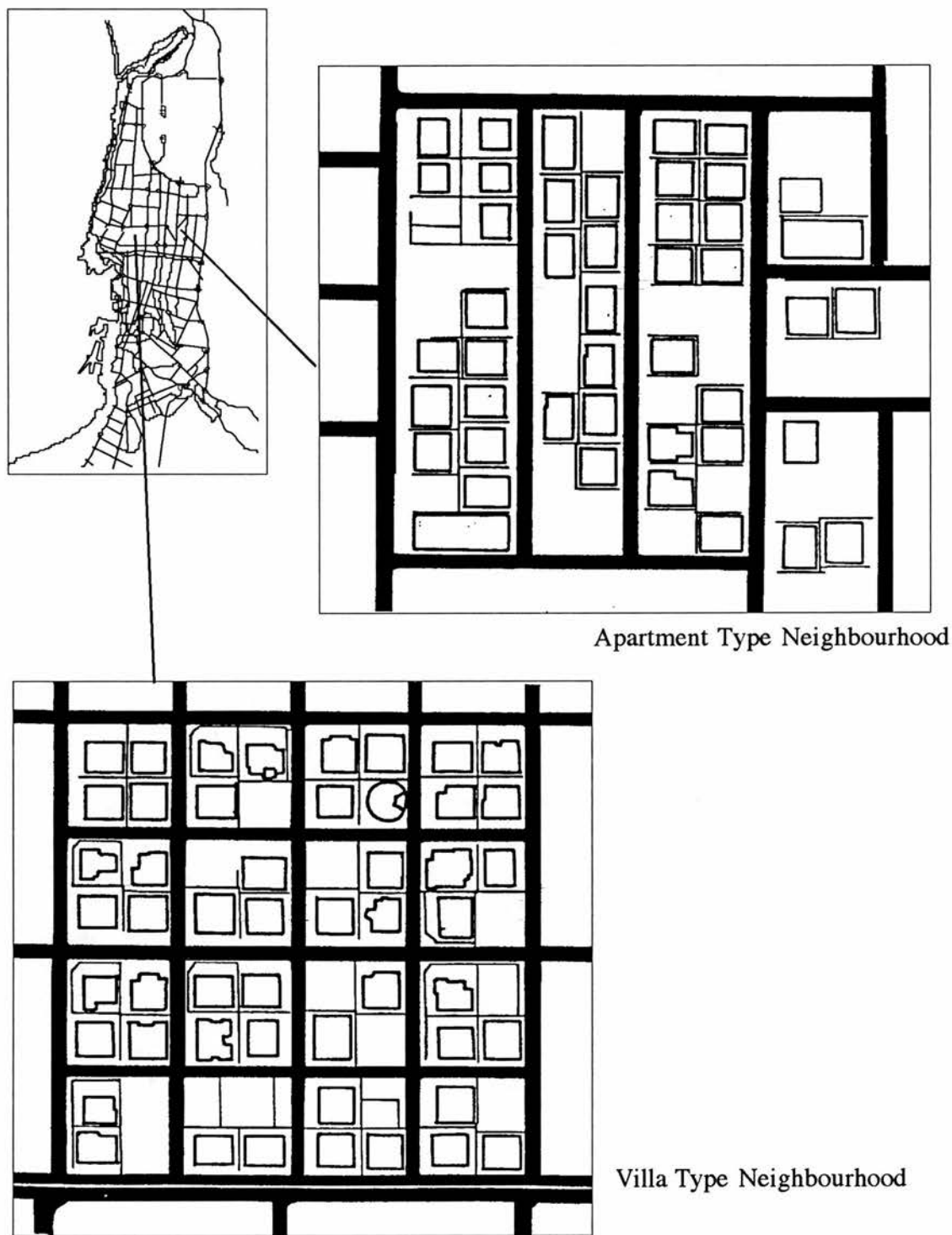


Fig. 6.9 Urban layout of modern neighbourhoods.

(Neighbourhood plans from T. Alharbi, "The Development of Housing in Jeddah", unpublished Ph. D. Thesis, U. of Newcastle upon Tyne, 1989, p. 207.)

## **6.2.2 Apartment Housing Type**

### **6.2.2.1 Residents' Aspects**

As mentioned earlier, nearly 55% of Jeddah's Saudi population is of middle-income class. A little under a half of these (44.5%) live in apartments. They are rent-paying tenants as they cannot afford to rent or to build their own villas. In fact, a municipal statistic conducted in 1979 revealed that 76.9% of Jeddah's inhabitants lived in rented accommodation, and 75% of the city apartments were inhabited by the tenants who paid S. R. 15,000-20,000 a year.<sup>5</sup> The rent varies from one location to another. For example, the apartment buildings located in a main street where most facilities are available command a higher rent than those located on a minor road. Also the location of the apartment in the building influences the rent. The rent of a ground floor apartment is lower than that for an upper apartment because it is overlooked by neighbours, not well ventilated, and subject to noise and pollution created by cars parked close to the front of the building. Because of their limited salary (S. R. 2,000-5,000/m), the householders of these apartments are unable to benefit from the REDF program which requires them to be property owners. Hence, they live temporarily in apartments hoping one day to own a plot and becoming eligible for REDF loan aid.

Owners of new apartment buildings, some of whom reside in one or two units, are also in the middle-income bracket. Their buildings were funded by REDF. The fact that apartment housing offers an opportunity for additional income encourages many middle-income Saudis to construct apartment buildings instead of villas although some owners build a villa and move into it later. The majority of apartment householders, both tenants and owners, are employed and 66% of them work for the government. The average number of employed persons per family living in an apartment is 1.45.<sup>6</sup> As most government offices concentrate on the transitional area around the city centre and sometimes in the south, the inhabitants of these apartments do not live close to their job. This means a heavy reliance on transportation.

The vast majority of Jeddah's apartments are inhabited by newly formed or nuclear families some of them having moved away from an extended family unit. According to a municipal study done in 1979, 92% of apartment residents have chosen to live in this type of housing in order to establish a new life, change accommodation, or benefit from business or job opportunities.<sup>7</sup> The average size of a family living in an apartment is around 4-5 persons.<sup>8</sup> Usually this family consists of parents and 2-3 children. Up to 88% of apartment families own refrigerator, T.V, gas stove, fan, washing machine, and more than two air conditioning units.<sup>9</sup> In terms of occupant density in relation to number of rooms, 70.4% of Jeddah's population live in houses accommodating less than one person per room. And 67% of Jeddah's new houses consist of 5-8 rooms. A typical apartment in a 2-3 story building consists of an average of 5.84 rooms.<sup>10</sup>

#### **6.2.2.2 Architectural Characteristics**

65% of Jeddah's new dwellings are apartment buildings in the northern suburbs of 2-3 storeys with 2-4 apartments on each floor.<sup>11</sup> The vast majority are built in plots each of a size ranging from 400 (20 x 20), 600 (30 x 20), 750 (30 x 25) to 900 m<sup>2</sup> (30 x 30.) But the average size is the 30 x 20 m<sup>2</sup>. According to municipal regulations, an apartment building should not occupy more than 60% of the property. The unbuilt area is reserved for setbacks. The building must be offset by 2-3 m from the neighbouring lot and in front by 4 m or 1/5 of the width of the street. If the property is located on a 12 m street, a 4 m setback should be provided taking into the account also that the area covered by the building should not exceed the 60% (fig. 6.10).

According to regulations, the front setback should be provided for car parking. It is also the space where two underground tanks, one as a water storage and the other a septic tank, are usually constructed. Sometimes this setback is landscaped, but it should be always kept clear for car parking. The side and rear setbacks are not used for any specific function although the municipality claims their purpose is to provide natural ventilation and light and protection of privacy.

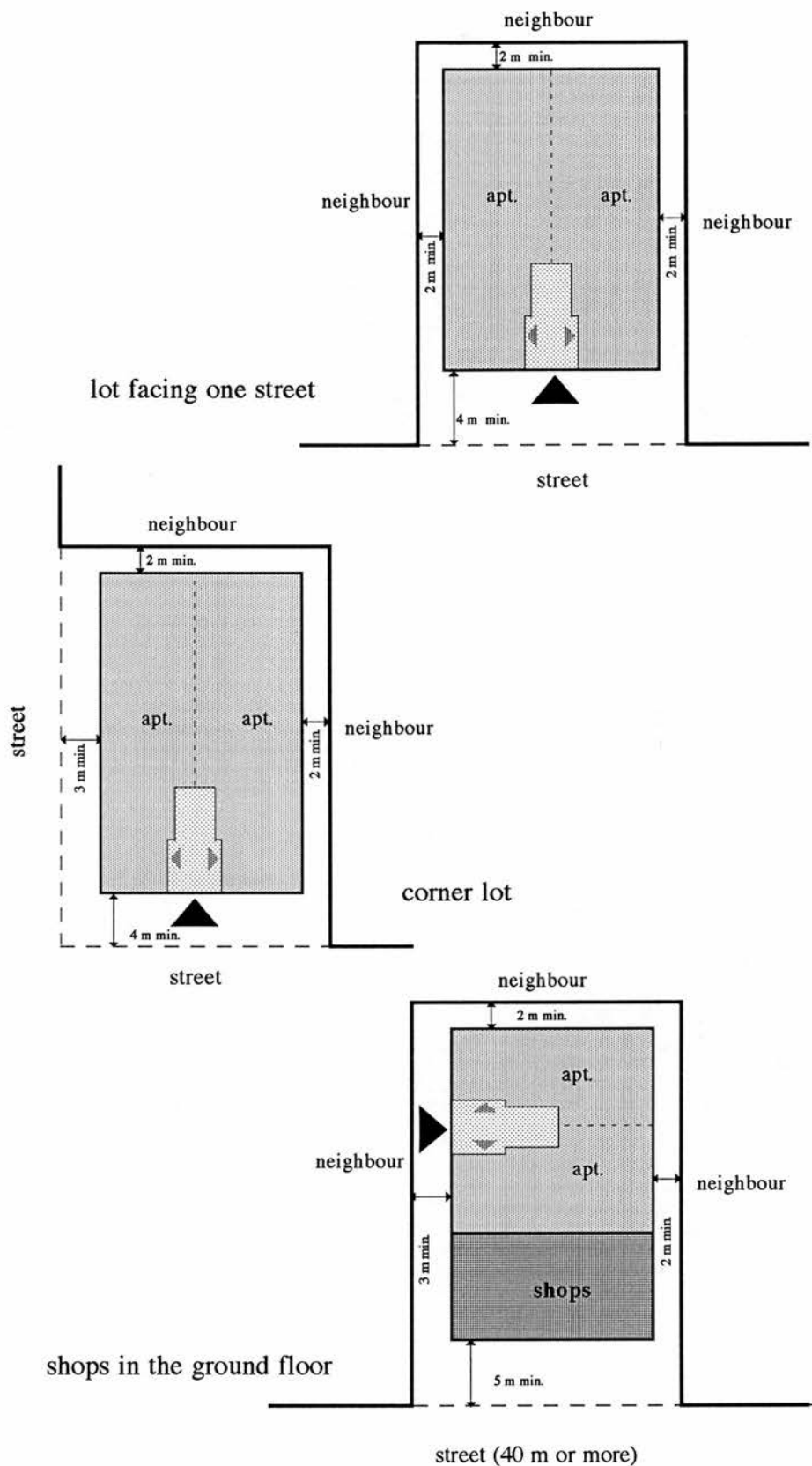


Fig. 6.10 Setback requirements and layout arrangements according to location and use of the apartment building.



#### 6.2.2.2.1 Spatial Arrangement

The layout of the actual apartment building is greatly influenced by the setbacks and the 60% coverage ratio. The result is a box-like building where rooms are arranged in line. In general, the plan of a typical 2-3 story apartment building is divided into two equal parts with an entrance lobby and a central stair in between. On each side of the entrance lobby which should be at least 4 x 4 m and face the front setback, two apartments are arranged, each of which is regarded as a separate dwelling unit. Nowadays it is rare to find more than two apartments on each floor in a building constructed on a 600 m<sup>2</sup> plot as people prefer to rent or live in spacious apartments. Behind the staircase, which usually leads to the upper apartments and a roof, an air shaft called manwar is located for ventilation and lighting. This manwar (1 x 3 m) is a space, inaccessible to the tenants, open to the sky, and enclosed by a wall. It is supposed to circulate air and allow undesirable odours to escape from damp spaces such as kitchens and bathrooms whose windows open on to it (fig. 6.11).

It is important to mention that lots facing a street of 40 m of width or more are permitted to have shops in the ground floor. In this limited case of the mixing of commercial activities with residential in one building, the front setback should be 5 m minimum and the main entrance of the building should be located at one of the other sides. The setback facing the entrance should be at least 3 m.

In regard to the spatial organisation of a typical apartment, the plan covers an area of 110-160 m<sup>2</sup> and is divided into two domains: public and private. Although the spaces of these domains are indistinguishable by their shape, each of them is designated for a specific use.

The public domain which is used by visitors, is next to the apartment entrance and its lobby and includes a guests' or reception room, a dining room and a toilet unit. When the apartment is small, the entrance lobby takes the shape of narrow corridor. As the floor above the building entrance hall usually provides extra space to the area of the

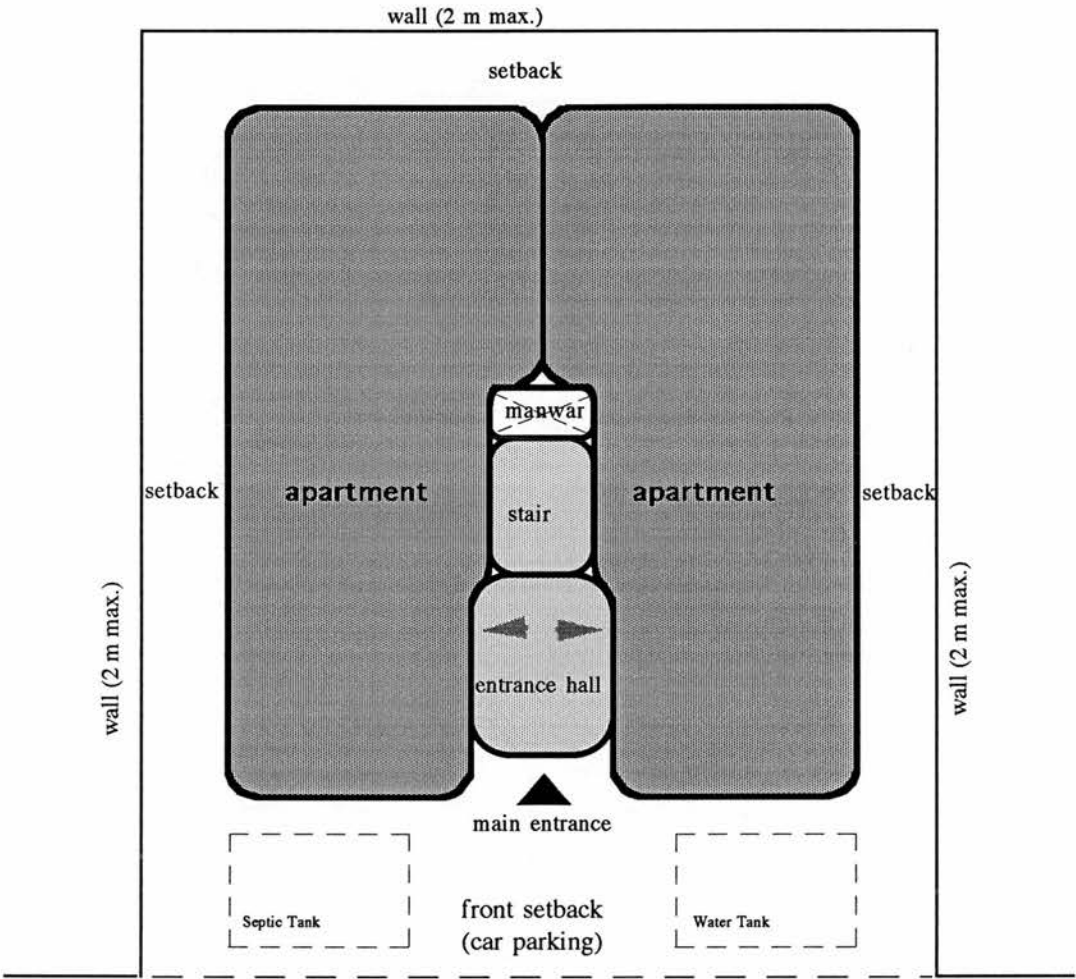


Fig. 6.11 Main components of the apartment building.

upper apartments, their entrance lobbies could be slightly larger than the one in a ground floor apartment. In this case, an additional room could be included in an upper apartment. The entrance lobby is regarded as a distribution area between the two domains. It is faced by the reception room which has one or two windows and sometimes a sliding door opens to the dining room and another leading to a balcony. The usual dimensions of a guests' room are 5 x 5, 5 x 6 or 4 x 6 m depending on the lot size. Its furniture includes Western relatively immobile furniture such as chairs, sofas, tables, etc. There will also be curtains on two or three sides. The dining room which might not be available in a small or ground floor apartment, is directly accessible from the guests' room or from the entrance lobby. This room is also used to receive guests. Sometimes it is called majles or "Arabic guests' room" and its size varies from 4 x 5 to 5 x 6 m. For serving, this room has a door opening to the family's domain, particularly the living room. However, this door is not always used as it is often blocked to accommodate the room's furniture distribution. Although people are attracted to the Western lifestyle, they still practice some traditional customs such as sitting and eating on the floor. Therefore, the dining room is furnished with a traditional Arabic furniture of mattresses, cushions and pillows. People believe that this type of furniture would create an informal atmosphere which is not provided in the Western furnished guests' room. Thus, it is very common to receive close friends and relatives in the dining room which is also used by formal guests. In this case, after the family's womenfolk have laid a cloth and arranged the food on it, the male guests are invited in. The customary habit of washing hands before and after eating necessitates locating a separate toilet close to the guests' and dining rooms. This toilet is sometimes located next to the manwar for ventilation, lighting and pipe installation.

In the family domain, the kitchen serves both the guests and family. Although such a function suggests a central location of the kitchen, the location is also determined by ventilation and pipe lining. For this reason some kitchens are located next to the manwar. The kitchen sizes vary between 4 x 3 and 4 x 4 m and is accessible from the living room. It does not always have storage spaces, but it does include all kinds of

modern appliances such as refrigerator, gas stove, etc. It is also decorated throughout with ceramic tiles of different shapes and colours.

The living room is the predominant space in the family section as well as the focus of household activities. It is the place where the members of the family sit, eat, entertain, etc., and sometimes receive female guests, mostly relatives. It is entered from the apartment main corridor and leads to the bedrooms. The common area of this room whose furniture exhibited both traditional and Western styles, varies between 4 x 5, 4 x 6 or 5 x 5 m. A T.V. set with a V.C.R. is the basic element that controls the furniture arrangement of this room.

The sleeping section is located at the rear of the family domain. This section typically consists of two bedrooms and a bathroom arranged around a small lobby. While one of the bedrooms is used by parents, the other is for children. They are also furnished with Western style beds, cabinets or dressers, corner tables and curtains. The bathroom, which is regarded as the main bathing unit of the apartment due to its size (2 x 3 - 3 x 3 m) and location, has an efficient sewage system. Being used also for laundry, the bathroom commonly includes a washing machine which reduces its floor space considerably.

The most controversial space that is functionally supposed to belong to the family's domain is the balcony. This space is used for drying clothes. Its inappropriate location in the guests' domain or in the front of the apartment stems from the municipal rule which does not permit balconies at the back or sides of the building where the setback is only 2 m. Nevertheless, as mentioned earlier it is permitted to place balconies in these sides if the setback is 3 m or more. In following this 3 m setback rule, the built area of a typical lot of 600 m<sup>2</sup> would be less than 60% and this affect the sizes of the internal spaces (fig. 6.12).



Fig. 6.12 Examples of indoor spatial arrangement of apartment housing.  
(Plans from original drawings provided by a sub-municipality in Jeddah in 1989 and 1990.)

#### **6.2.2.2.2 External Treatment**

Most apartment buildings are similar in their external form. They consist of rectangular facades forming a box shaped block in a style that does not differentiate the residential function of the building from those of other buildings of different functions. However, there is a design emphasis on the front facade for two reasons, a) the public perception that the front facade reflects the architectural quality of the building since it is the only visible elevation while others are obscured by neighbouring buildings, and b) the municipal requirement that all owners should observe the aesthetic quality of the front elevation.

The front facade which is usually covered with white or beige marble tiles, is dominated by balconies, windows and the main entrance. The balconies are no more than semi-walled spaces affixed to the facade. Both the entrance door and windows are rectangular glass panels with aluminium frames. The facade also features out-of-scale arches imposed upon and clumsily applied around the windows. In many cases, wooden screens are also used on parts of the windows, balconies and cavities to hide some water and sewage pipes and where air conditioning units are placed. Due to the increasing cost of wooden elements, many people have recently turned to metallic or aluminium screens and painted them to imitate wood. These arches and screens which have both become almost a regular architectural feature applied to all kinds of buildings and have been incongruously applied to the facade as the municipality requires, are no more than decoration. Beauty, or decoration, is the criteria that Jeddah's municipal authorities use to measure the architectural quality of the buildings before giving the building permission. The municipality aims by means of such decoration elements to control the appearance of buildings, revive traditional architectural character and in turn to give the city an Islamic urban appearance. This aim is admitted by the Mohammed Saied Farsi, the former mayor of Jeddah. He says, "particular emphasis is placed on the revival of Islamic features both within and without the dwelling units."<sup>12</sup> However, the

emphasis has resulted in the application of historical symbols of confused mixture of forms derived neither from structural system nor functional necessity of the building.

Unlike the front facade, the other facades are almost plain except from windows vertically and horizontally arranged, standard in shape (rectangular) and size, and framed with arches vertically run along the building. They are simply painted with white plaster (figs. 6.13-6.14).

In general, concrete, cement blocks, sand cement bricks, glass, wood, and aluminium are the basic materials used in the construction of apartment buildings. Some of these materials, such as cement bricks, steel, aluminium and gypsum are locally produced.

### **6.2.3 Villa Housing Type**

The villa type was introduced into Jeddah in the 1950's by designers from nearby Arab countries (e. g., Egypt, Jordan, and Lebanon.) It is typically a low-rise, detached two story house, built in the newly sub-divided areas of grid-iron pattern in the north of Jeddah. It is the most preferred type of dwelling for the majority of Saudis because it is spacious and has outdoor space which gives the feeling of independence not found in apartment housing. According to a survey of 108 new dwellings in Jeddah carried out by Tariq Durani through King Abdul Aziz University in 1983, 94% of the respondents preferred ownership to renting and 75% of them preferred to own a free standing detached villa.<sup>13</sup> In addition, the parcelling of land into individual lots, the actual control on site use and building form, and the relatively easy access to funding for house building under the Real Estate Development Fund (REDF) were and still are the prime factors for the development of the villa type since 1975.

#### **6.2.3.1 Residents' Aspects**

Almost all villas are inhabited by nuclear families the majority of whom have previously lived in apartments. They differ from the inhabitants of apartments in that they own their dwelling and their income is marginally higher. This may classify the



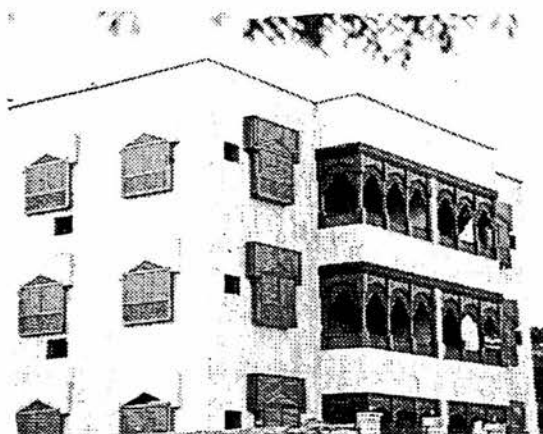
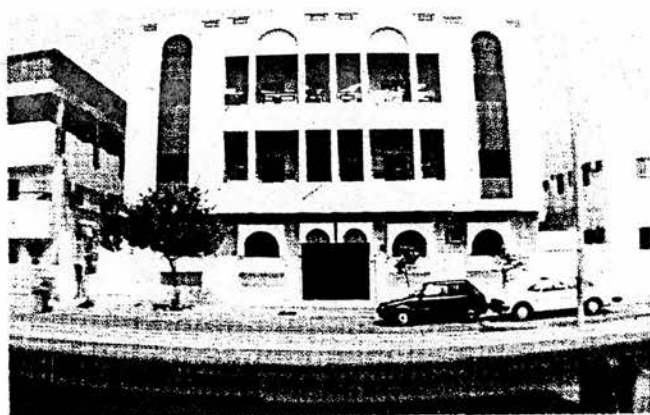


Fig. 6.13 Examples of front facades of apartment housing.

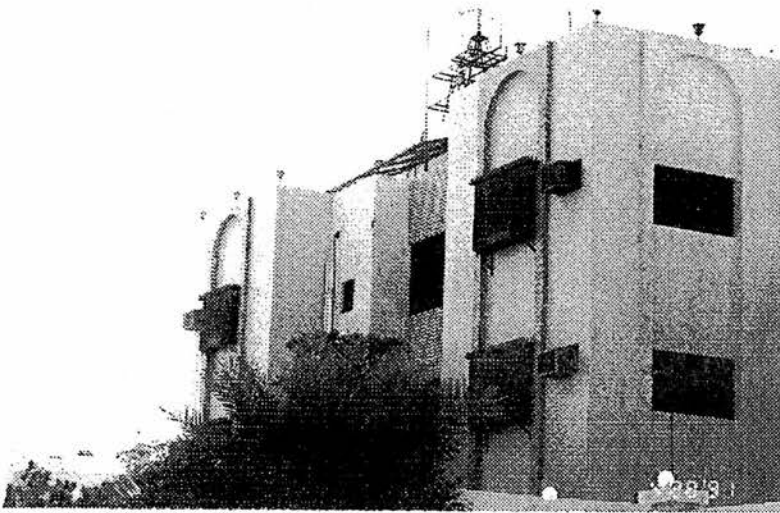
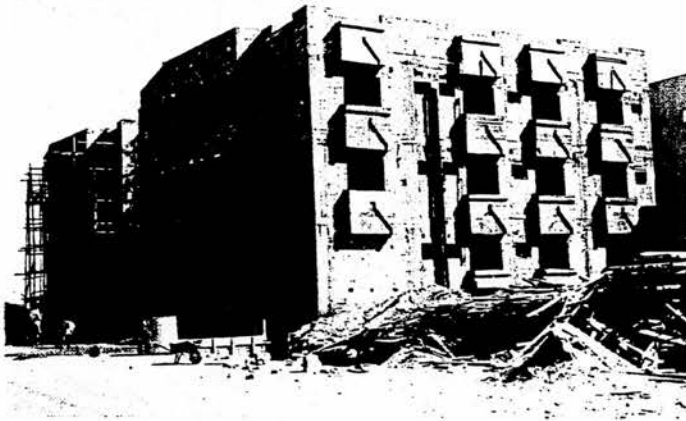
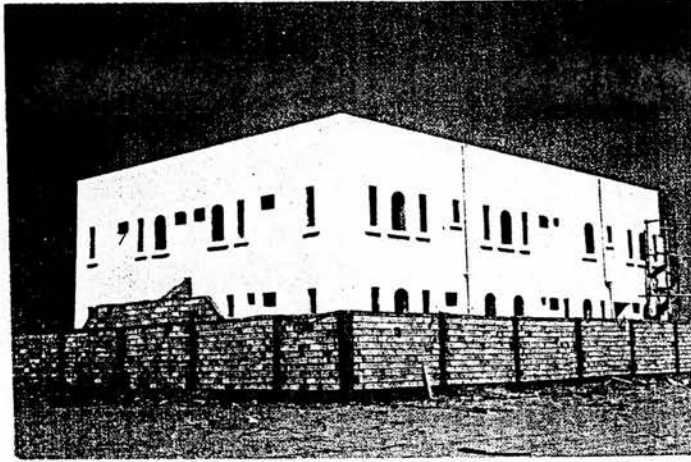


Fig. 6.14 Examples of side and rear facades of apartment housing.

group as high middle-income. In 1979, this group of high middle income living in villa housing represented 10% of Jeddah's entire Saudi population.<sup>14</sup>

### **6.2.3.2 Architectural Characteristics**

It is not easy to generalise about the architecture of villa housing because many of them do not conform to a common design language. Nonetheless, there are several factors that make the design of many villas almost identical:

1. Villas built throughout north Jeddah tend to be copies of each other because owners, as they receive loans from the REDF, are unwilling to spend extra money on design. Thus, they look for designers who might sell them a copy of a ready-made design that fits their lot size.

2. The municipal building regulations such as setbacks and lot coverage ratio are applied to all villas. This contributes significantly to the creation of villas of similar building layout, spatial arrangement and sometimes elevation. Also the similarity of lot size and shape supports this uniformity.

3. As many people tend to idealise villa housing before moving from an apartment, they are anxious to own a villa similar to an existing one they had seen before. Therefore, some of them try to adopt almost the exact architectural idea of that villa.

4. Having lived in apartments before building a villa, many inhabitants have no experience of the villa life-style and are unable to visualise an alternative living environment to apply in their intended villas. A villa is a complete new life experience for them. This leads them to accept slavishly whatever design an architect provides them with.

### 6.2.2.3.1 Spatial Arrangement

The design of a typical villa is determined by the municipal rules which require that:

1. The building should not exceed 60% of the land coverage. This percentage can be even less in some suburbs where lots are large (i. e. more than 30 x 30 m) and where the coverage ratio should not exceed 40 or 50%.<sup>15</sup>
2. The front setback should not be less than 4 m or 1/5 of the street width while the other setbacks should be 2 m minimum each.
3. The building is 8-9 m high and consists of 2 storeys as one single family dwelling.
4. The building should not be raised more than 0.9 m above the ground level.
5. The fence walls around the property should not be higher than 7 feet.<sup>16</sup> Why 7 feet?

The result of these rules is a building sitting in the middle of the lot, with an open space around it surrounded by walls on four sides. The front open space is designed for car parking, well landscaped and may include a swimming pool and underground water and septic tanks. Between this space and the street, the most significant physical and architectural element of the villa is built: the reinforced concrete front wall, which along with the other surrounding walls, defines the land ownership and separates the lot from others and from the street. This wall includes a large and highly decorated gate to emphasise the main entrance of the dwelling.

Although there is a tendency to maintain the 2 m requirement in the other setbacks, there is often variation in the extent of these setbacks. For example, in large lots (i. e. 30 x 30 m) a rear or side setback could reach up to 3-4 m or even more.

The actual building occupies 240-320 m<sup>2</sup> and consists of two storeys vertically linked by a staircase which is located at the centre or side of the building. The internal

rooms are similar to those of the apartment in shape and function, but here in the villa they are more numerous and spacious. The ground floor of a typical villa is divided into two zones: public and semi-public. The public zone includes the spaces used by visitors. It begins with the entrance hall which is approached through a main door facing the front open space and works as a distribution area. Its size varies between 3 x 3 to 5 x 5 m according to the staircase location as well as the lot size. In some cases when the stair is in the centre, the entrance hall is open to the roof of the upper floor and sometimes topped with a small dome or skylight. Although this hall is used mainly for circulation, it is furnished with a few pieces of Western style furniture for visual effect. The main space in the public zone is the guests' room, called the salon, where visitors are received. It is longitudinal in shape and its size varies from of 4 x 6 to 5 x 8 m with Western furniture such as sofas, chairs, tables and curtains. The next room in importance is the dining room which is also rectangular and large (5 x 4 - 4 x 6 m) and entered from the salon or entrance hall. It is not always furnished with Western style furniture as it will be carpeted and may include cushions arranged against three walls. Close to the dining room and the salon, there is a bathroom accessible from either the dining room or the entrance hall. If the size of the property allows, a multi-purpose room used as an office or study may also be found in the public zone.

The semi-public/private zone is located in the other half of the ground floor. Its rooms are used mostly by the family and female guests and are sometimes grouped around an interconnecting lobby entered through a door separating it from the public zone. One of these spaces is the kitchen which is also close to the public zone. It is large (4 x 5 - 5 x 5 m), well equipped with modern cooking appliances and with ceramic tiles on walls and floor. Besides the two doors that connect the kitchen with the adjacent lobby and the dining room, a third door is sometimes added leading to a side or rear setback. As the kitchen is also used for the washing of clothes, access is needed to the setback for hanging clothes. However, drying clothes also takes a place on the roof. In many cases, the semi-private zone includes a living room which is entered from the

lobby and again furnished with both Western and traditional style furniture. Entertaining female guests and family gathering for eating and watching T.V. are among the main activities for this room which is also relatively large (4 x 5 - 4 x 6 m.) A bathroom is situated close to this room. Next to it is a room which might be used by a relative, close friend or as a bedroom for a female servant. This extra room could be considered as the only multi-purpose space in the entire dwelling.

The upper floor of the villa is mainly used for sleeping as it consists of 3-4 bedrooms. While two of the bedrooms are used by children, the other, a master bedroom with a bathroom, is used by parents. It is not unusual to find another living room in this floor served by a small kitchen. In fact, owners of large properties find it convenient to have a living room next to the bedrooms so the family activities can be concentrated in one floor. In this case, the villa building is turned into two domains, public/guest and private/family separated by level. Also in this case the living room of the ground floor becomes mainly a female guest reception area. In another arrangement, the hall around which the spaces of the upper floor are grouped is used as a living area. The upper floor also includes the main bathroom (3 x 3 m) of the villa. It is close to the children bedrooms and consists of a washing basin, bath, two bidets and ceramic tiles on walls and floor. Sometimes, this bathroom is used for laundry as it is close to the roof and balconies. Usually there are one or two large balconies in the front reached from the central lobby, living room, and/or the master bedroom. One or more smaller balconies may exist opening out from the other bedrooms over looking the side setbacks (figs. 6.15-6.16.)

On the top of the upper floor, the walled-in roof open to sky has no particular function except for placing T.V. antennas and a water tank on the top of the staircase extension.

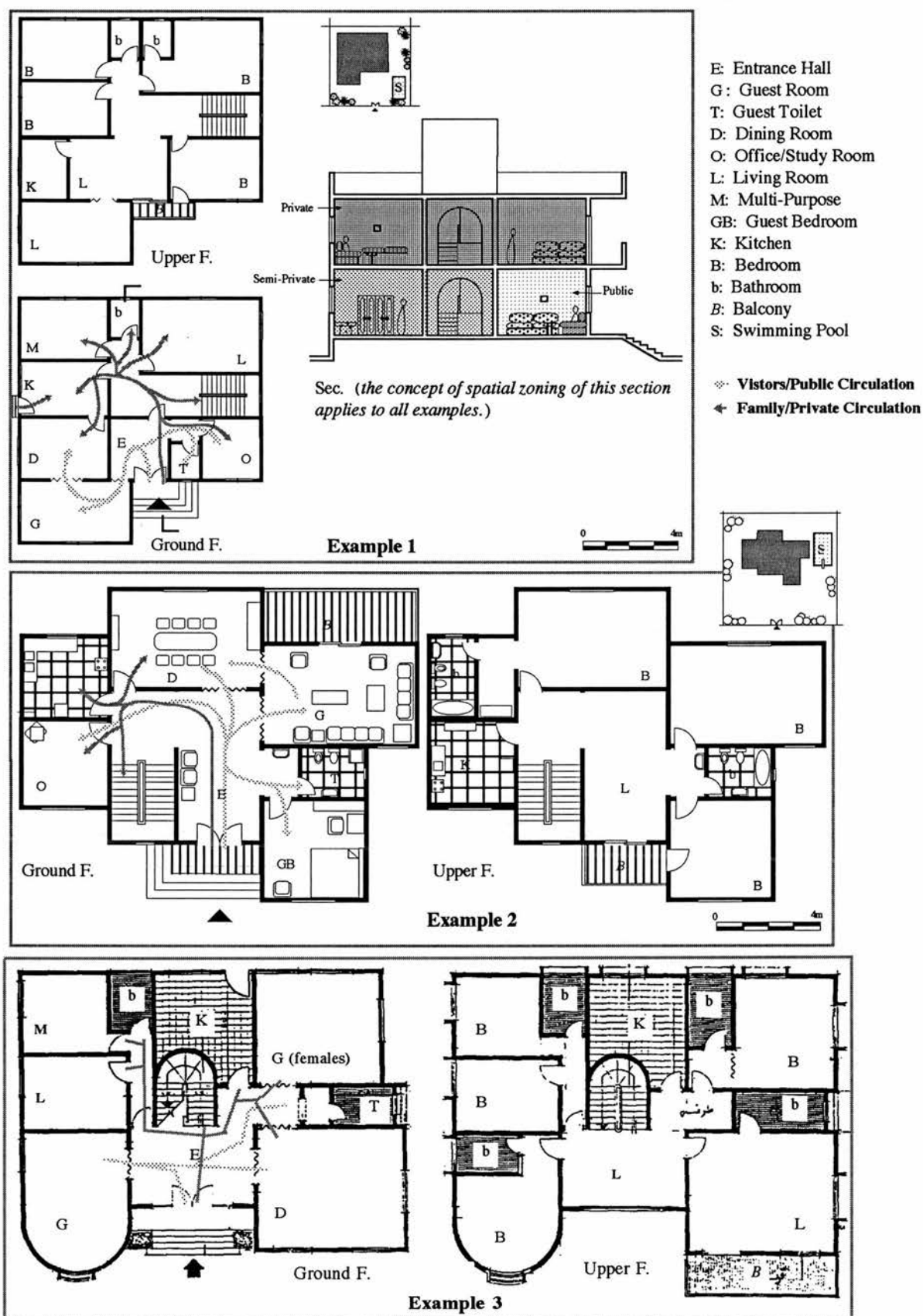
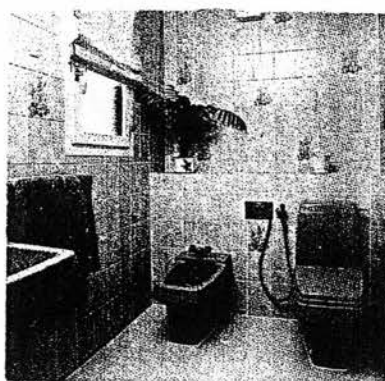


Fig. 6.15 Various spatial arrangements and layouts of villa housing.

(Plans of Examples 1 and 2 adopted and developed from Sub-Municipality, op. cit.; Example 3 from T. Alharbi, Municipality archive, op. cit., p. 260)

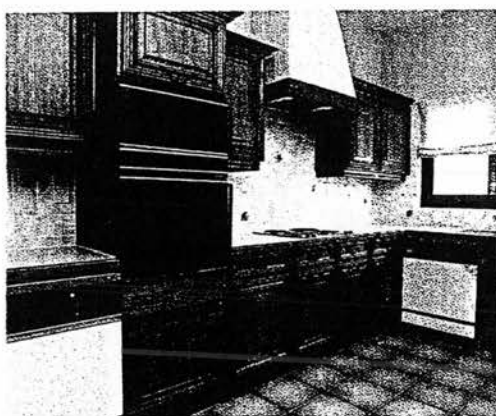




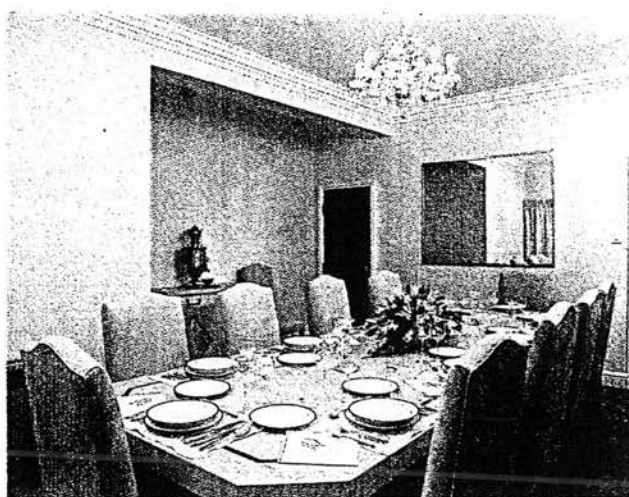
Guests' toilet unit



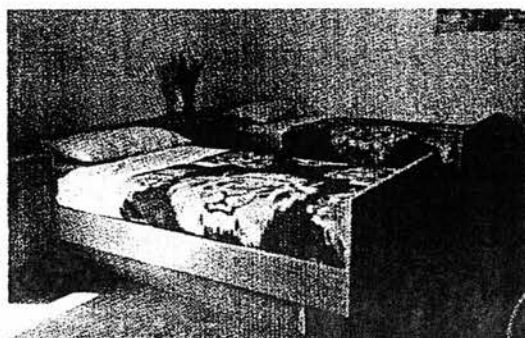
Reception room



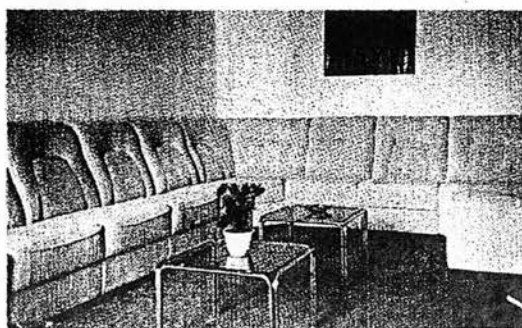
Kitchen



Dinning room



Children's bedroom



Female guests' room

Fig. 6.16 Some villa indoor spaces with Western-style furniture.

#### **6.2.2.3.2 External Treatment**

Unlike the plans, the elevations of the villa tend to express the personality of owners who have the freedom to use materials and shapes that are beyond the scope of the design drawings. The facade of most villas is a result of collective efforts made by the owner, his friends and the contractor in defining the features and decoration of the facade. The end product is a motley collection of styles, from plain and simple to the wildly extravagant forms, derived from classical and traditional to post-modern and other odd structures which would be difficult to classify.

Reinforced concrete, the main construction material used in villa construction, offers infinite possibilities for creating complicated and exaggerated shapes and forms on the facades, particularly the front one. As opposed to apartments, mass and surface articulation on both vertical and horizontal planes are among the common features of the external form of villas. Two dimensional treatment of large arched windows is common. Meanwhile, the distribution of openings (e. g., windows, balcony doors, main entrance, etc.) on the main facade does nothing to establish a particular pattern. This facade is also dominated by other combinations of two and three dimensional forms (e. g., balconies, roof, room projections, arched, and pointed or rectangular frames around windows.)

Similar to the main facade of apartments, the front facade of many villas includes wooden or metallic panels that are partially applied to windows, balconies, roof parapet to cover external pipes and cavities (figs. 6.17-6.18). White or beige marble is the main finishing material.

In contrast with the front facade, the side and rear elevations are less decorated and are constructed from cement bricks. They are covered with white plaster and characterised by rectangular or arched glass windows, openings of air conditioning units and water and sewage pipes.

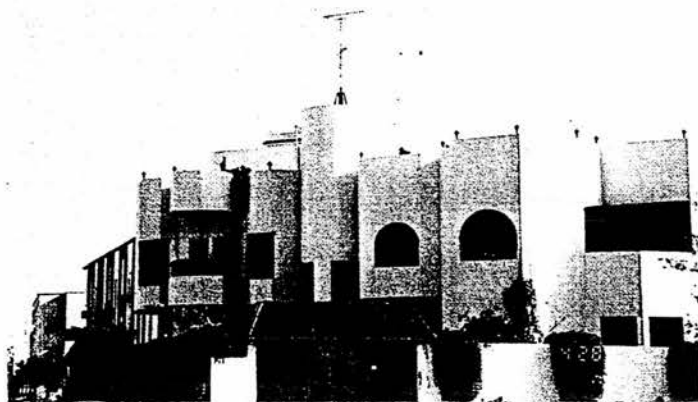


Fig. 6.17 Examples of facade treatment of villas.

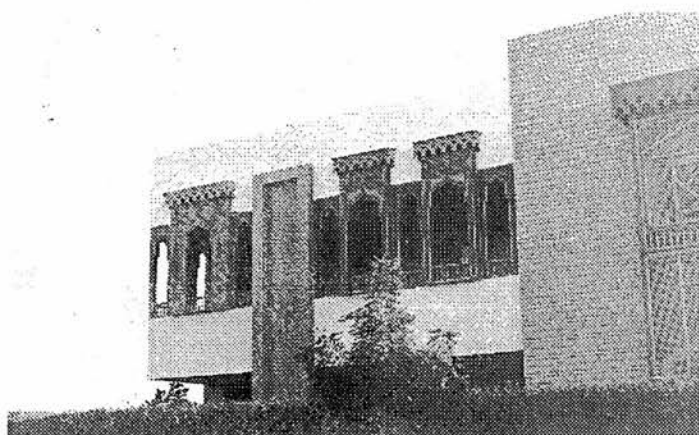
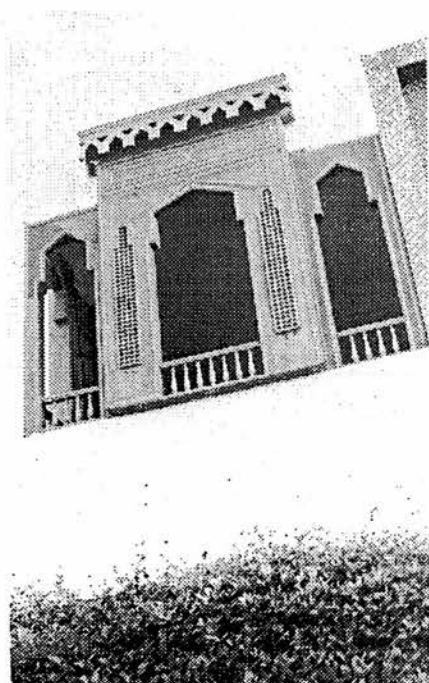
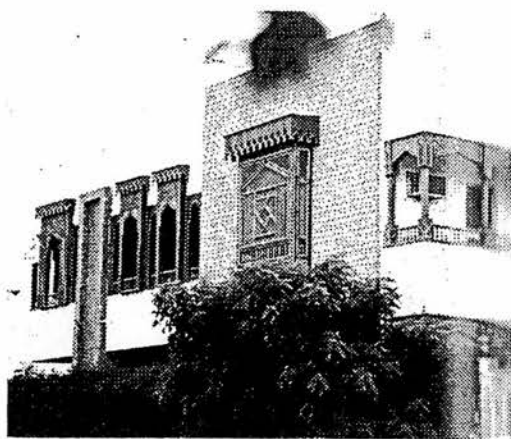


Fig. 6.18 Wooden screen elements applied to the external elevation of villas.

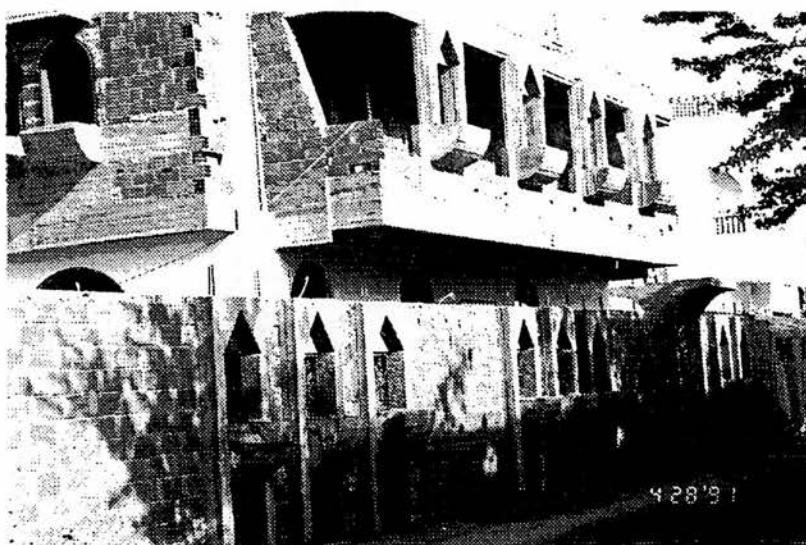


Fig. 6.19 Examples of front fence and gate treatment of villas.



Despite the exaggerated architectural treatment of the front facade, more attention is paid to the front wall (3-4 m high). It is made of a reinforced concrete, decorated by indentations and geometric excrescences built of bricks and concrete. Sometimes, pots are included where plants can be grown. The decoration of the wall is enriched by a large iron gate (6 x 4 m) with floral or geometric decoration (fig. 6.19). The gate dominates the front facade especially when topped with a large concrete umbrella which sometimes screens the building behind it.

### **6.3 SUMMARY AND CONCLUSION**

The new housing forms that dominate Jeddah's built environment are mainly represented by apartments and villas inhabited by middle-income Saudis. The urban layout of the northern districts where most of these dwellings are built exhibits a grid-iron pattern featuring long, wide streets intersecting at right angles. The typical design of an apartment building is a box-shaped building surrounded by setbacks on all four sides. The building itself has 2-3 floors, each of which consists of two apartments facing each other. The plan is divided into two sections. While one of the sections is used by visitors, the other is private and includes the spaces used by the occupying family. Rectangular in shape, the front facade of the apartment building is characterised by balconies, framed windows and the main entrance of the building. The other facades are simple plain walls apart from large glass and aluminium windows.

As with the site plan of the apartment building, the villa building is surrounded by four setbacks but all are enclosed. Its two floors are assigned for two main domains. The ground floor is mostly used by guests while the upper is used by the family. The front facade is more complicated. It is characterised by various shapes, forms and materials applied to balconies, windows and other surfaces. This exaggeration in

decoration is also applied to the front wall and its gate, however, the side and rear elevations are usually less complicated and similar to those of the apartment building.

Many of the planning and design characteristics of these apartment and villa buildings violate traditional principles of Islam. The next chapter analyses each of these characteristics in relation to the violation it causes.



CHAPTER **7** —

## THE VIOLATION OF TRADITIONAL PRINCIPLES IN JEDDAH'S NEW HOUSING

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The new housing patterns of Jeddah incorporate planning and design factors that violate social and physical principles of Islam regardless of the argument that they provide what modern Saudi life needs with regard to comfort, spaciousness, cleanliness and functional amenities. These factors also support social norms (i. e. materialism and individualism) and behaviour that have been engendered as a result of modernisation and which are in conflict with traditional principles.

Using the Islamic principles that were explained in Chapters 2 and 3 as the criteria for judging new housing forms, this chapter covers the planning and design factors in Jeddah's modern apartments and villas and which violate these principles. The chapter is divided into two main sections. The first section deals with violation factors at the urban scale while the second refers to the scales of neighbourhood and house.

As with Chapters 5 and 6, the arguments in this chapter are supported by statistical data and figures provided by various sources. In addition to George Duncan's unpublished study on the planning and development of Jeddah; Thamer Alharbi's unpublished thesis on the development of housing in Jeddah; and Jamaludeen Salagoor's unpublished research on the influence of building regulations on urban dwellings in Jeddah; the unpublished study by Abdelmohsen Farahat, et. al., which evaluates building and land-use regulations as applied in Saudi Arabia, contains supporting information on the socio-cultural consequences of these regulations. The results of a survey by Abdulaziz Al-Saati on 306 new villas and apartment buildings in Medina and Dammam provide background on inhabitants' opinions on these dwellings. Other information was also obtained from the Jeddah-based newspaper of Okaz.

Although newspapers might be considered an unreliable source for research, Okaz, from time to time, reports studies and surveys carried out by experts on the latest socio-cultural and environmental issues in Jeddah.

## **7.1 FACTORS OF VIOLATION IN THE URBAN SCALE**

The violation factors at the urban scale of Jeddah's modern environment range from those of foreign master plans and inappropriate urban forms, to the absence of climatic treatment, unjust socio-urban zoning and inaccessible facilities.

### **7.1.1 Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts (p1)\***

There is no question that if traditional principles are to be achieved in a built environment for Muslims, planning and regulating this environment should be carried out by Muslims or at least by those who are conversant with Islamic shari'ah. In the case of Jeddah the opposite is true. The new dwelling environment is a result of master plans and building regulations set up by Western planners and rooted in non-traditional principles.

In 1971, the Ministry of Municipal and Rural Affairs appointed Robert Matthew, Johnson-Marshall and Partners, Consultants, (RMJM & P), to prepare the official first master plan for Jeddah covering a 20 year period (1971-91). The key objectives of this master plan focused on the provision of enough information necessary to ensure adequate water and energy supply, maintenance of health, a sufficient network of roads, the encouragement of appropriate public transportation, and achievement of appropriate mixed distribution of various income groups by balancing residential density according

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\* This is a code given to the violation factor and appears in the tables included in Chapters 8, 9 as well as Appendix A. It abbreviates the aspect or scale where the violation of principles occurs. The codes begin with "p" represent factors relevant to planning, "a" to ambitions or desires of owners or designers, "i" to visual and acoustical intrusion, and "m" to miscellaneous factors.

to housing types.<sup>1</sup> George Duncan, who was part of the Sert Jackson's team during the production of the second plan, wrote in his research on the planning and development of Jeddah that the protection and, if possible, enhancement of the unshakeable belief in the moral and religious precepts of Islam was an essential factor in the approach adopted by RMJM in the preparation of the master plan.<sup>2</sup> In practice, however, this approach was marred by codes of setback, urban zoning based on income level, and a grid-iron pattern of long wide streets. These codes as explained in the following sections of this chapter cause major violations, such as privacy intrusion and social disintegration, of many Islamic principles. Also, the master plan did not indicate any reference to sharī'ah sources as a guide to the establishment of its planning approach and the achievement of its objectives. Therefore, in its totality, this master plan and its objectives which did not embody any specific social or physical Islamic concepts, values or rules, violated the traditional principle *Enhancement of the Application of Sharī'ah* (U3, L1), which sharī'ah requires Muslims to attain at all levels of their built environment.

As it was difficult for the municipal authority to implement RMJM's master plan due to the unexpectedly rapid increase in population and in housing demand, the authority in 1978 asked Sert Jackson International/Saudconsult to establish another plan but in a more detailed format. The principles of this new master plan were: a) ensuring an optimum use of land, b) provision of community facilities, c) reduction of overcrowding, and d) enhancement of the historic, natural and cultural values and amenities of the city.<sup>3</sup> The supporting documentation of the master plan claimed that these objectives would be achieved by following certain directions. It stated, "... the bye-laws should follow the prevalent practice and reflect on built practicality and flexibility. In addition, taking care of the principles of sharī'ah, the bye-laws must take account of the effect of the socio-economic and technological forces likely to be operative during the next 9 to 10 years."<sup>4</sup>

Regardless of this statement of the importance of considering sharī'ah principles, this master plan followed much the same planning approach as that which had been

adopted by the first plan. Such an approach included zoning regulations that classified the city into districts each of which had codes with regard to minimum plot size, maximum permissible ground coverage, maximum floor area ratio, permissible number of floors, and setbacks.<sup>5</sup> It is difficult to recognise how these codes would "take care of the principles of sharī'ah", as the master plan intended. In this respect, the violation of the Islamic principle of the *Enhancement of the Application Sharī'ah* (U3, L1) persisted in this plan too.

The non-Islamic planning direction that was followed in the two master plans was strongly criticised by both Western and local theorists. For example, Stefano Bianca, an author of many studies on the traditional Muslim cities, wrote in his comparison between the ideology of Western planning and that of Islamic tradition,

... the new planning instruments may create a whole set of new problems in terms of cultural alienation, with perhaps even worse effects than the chaos they were supposed to master. This holds specially true for Western-type building codes, implemented as part of new master plans: often their prescriptions violate the customs of the Islamic way of life, especially its concepts of privacy and the need for dense social interaction.<sup>6</sup>

Also, the ex-mayor of Jeddah, Mohamad S. Farsi, expressed his disappointment with the approach he and his team had chosen in the master planning of Jeddah through foreign consultants. He said in his study of the urban development of Jeddah,

In the beginning when the development started in Saudi cities after a long period of working on urban planning, in which I participated, the vision was not clear in our eyes. We were so impressed even by the nearest cities in neighbouring Arab states, by their high-rise buildings and their long straight avenues ... And our feeling about local architecture was imprecise. So we were uncertain how to proceed. The easy solutions were the choices we have chosen. And because of them, we collapsed few steps until our cities could have lost their identity.<sup>7</sup>

There is no doubt that the failure of these master plans to be guided by sharī'ah resulted from the absence of the *involvement of 'ulamma (religious scholars)* (U7), one of the planning principles highlighted by sharī'ah. Duncan stated that Saudi planners were indeed involved in the master plan of RMJM. However, their involvement was not effective. Duncan regarded this participation as a wish by the local authority to create a cadre of experienced planners. RMJM welcomed this for many reasons, one of them

being that this participation would significantly reduce cross-cultural and language problems. Yet, according to Duncan the unresolved question was, "could a Christian team of expatriate British professionals merge with an inexperienced team of Muslim trainees into a homogeneous whole?" He adds that from the contractual point of view, it was made clear by the Saudi authority that leadership and responsibility would remain with the foreign consultants.<sup>8</sup>

The violation of the principle of *Involvement of 'Ulama* (U7) is not only related to the foreign culture of the team that produced the master plans, but also applied to the municipality which is responsible for implementing and monitoring the proposals of the plans. Almost all municipal employees are not sufficiently acquainted with Islamic building jurisprudence. As a typical example, more than 85% of the employees of a northern sub-municipality are without a college degree, and 60% of them have not even reached primary education standard.<sup>9</sup> A few educated officials do have some kind of engineering qualification. Indeed, in this and other sub-municipalities, urban planning decisions and building matters are sometimes left in the hands of surveyors and draftsmen who usually only study them very superficially.

### **7.1.2 Dispersed Urban Form**

The contemporary dwelling environment of Jeddah has a dispersed urban form. There are several factors which are responsible for this form and also violate traditional Islamic principles. These are: long and wide grid-patterned streets, large open spaces and setbacks, absence of hierarchic traffic density and large urban blocks.

#### **7.1.2.1 Long and Wide Grid-Patterned Streets (p2)**

The street network of new Jeddah, planned according to the chessboard principle, consists of long, wide, straight streets (fig. 7.1). They are many in number and some of them are larger than is necessary to accommodate their traffic. This is a violation of the traditional principle of *Streets of Functional Width* (U11, L10) and *Balanced Wealth Consumption* (I3). The uneconomic side of this network, whose streets have created a



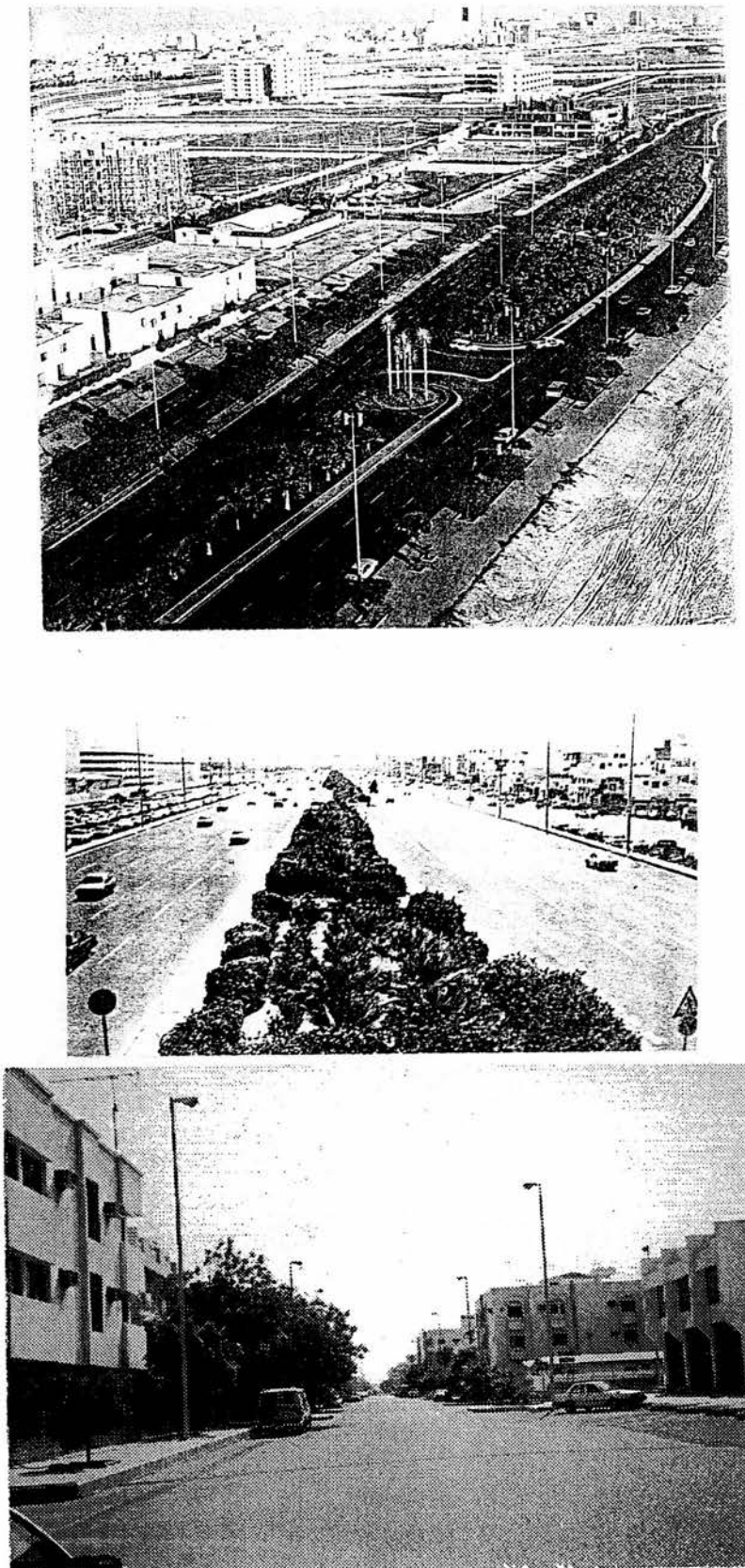


Fig. 7.1 Wide and lifeless Streets between modern districts and in neighbourhoods left abundant from pedestrians.

(The upper two pictures from, The Municipality of Jeddah, Jeddah, The Pride of the Red Sea: Development and Culture, Cairo, The Arabian House for References, 1984, p. 156, and A Journey of Accomplishments: Annual Report, 1990, p. 90.)



high ratio of void to solid, is also reflected in the resulting high cost of the installation of infrastructure and public services as well as their maintenance and operation. A simple example of this wasted expenditure is found in the lighted streets which sometimes extend more than 40 km and serve only a few houses.

As it is based on the requirements of the motor car rather than those of pedestrians, the grid-pattern network attracts vehicular traffic and generates congestion in some areas. The dominance of the car and the disproportionate area devoted to street surface, discourage walking, disturb the well being of residents, and in turn obstruct social interaction (fig. 7.2). This is a violation of many socially-related Islamic principles such as *Strong Social Integration* (S1) and *Strong Relations with Others* (I1). Social interaction is also reduced by the wide separation between dwellings by these streets. As a result, people depend on the car even for short trips. The many street intersections are formed by plots with high walls constructed around them, so the sight lines between moving traffic are obscured. Accordingly, both drivers and pedestrians are in danger since there is no adequate visual access of on-coming traffic (fig. 7.3). This has contributed to the growing number of accidents. For instance, 1,042 persons died in car accidents in Jeddah in 1973. The number rose to 2, 750 in 1979.<sup>10</sup> This problem is aggravated by the thoughtless location of gates by villa owners on the chamfered edge of a plot.

These dangers, together with traffic congestion, and the unpleasant climatic conditions which result from wide paved streets both distress residents and diminish any desire to move about outdoors for social communication.

#### **7.1.2.2 Large Open Spaces and Setbacks (p3)**

The dispersed urban form of modern housing environment in Jeddah is also a result of the existence of two types of outdoor spaces: open urban spaces and dwelling setbacks (fig. 7.4).

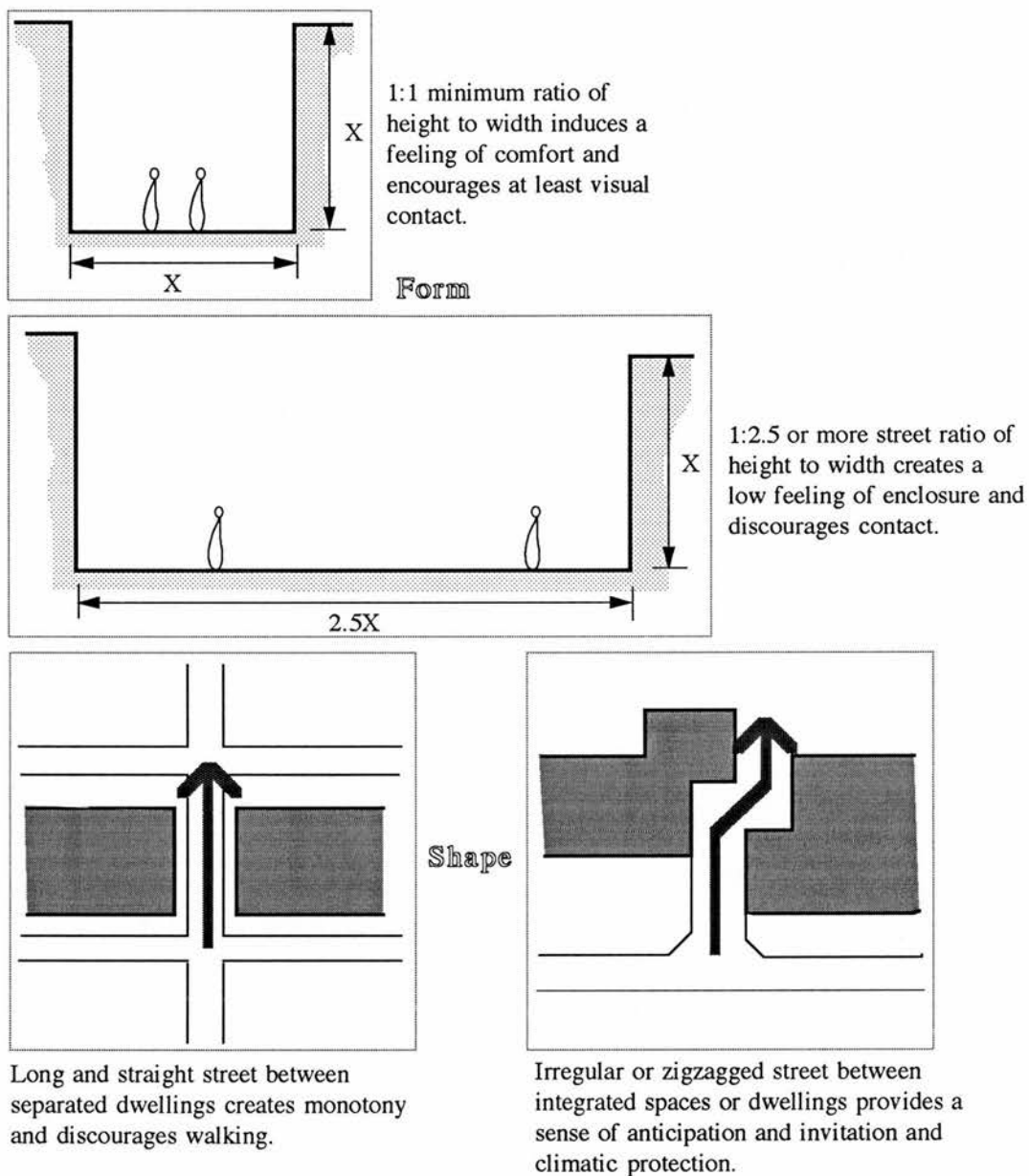


Fig. 7.2 The impact of street morphology on the feelings and behaviour of pedestrians.

(Adopted and developed from Department of Architecture and Civic Design of the Greater London Council (Housing Branch), "An Introduction to Housing Layout", London, The Architectural Press Ltd., 1983, p. 33 and 55.)

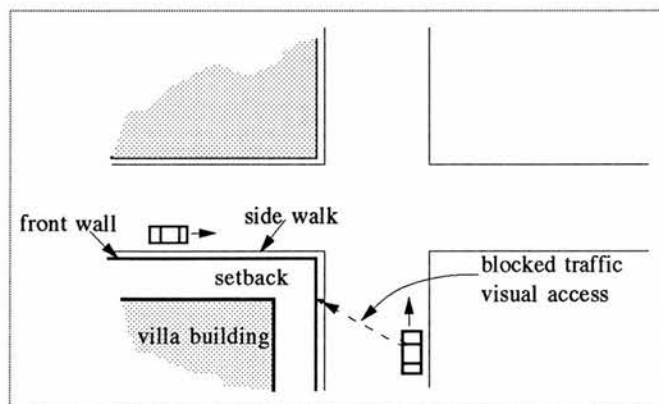


Fig. 7.3 Blocked visual access to moving traffic at intersections of streets and front walls of corner villas.



Fig. 7.4 Large urban layout and distances between houses created by setbacks and other leftover spaces.

(Adopted from Yousef Fadan, "Urban Dwelling Environment; Jeddah, Saudi Arabia", Unpublished Masters Thesis, MIT, 1977, p. 135.)

The new districts include many large spaces planned and designed by the municipality in the master plans as public gardens. According to latest figures, Jeddah contains 469 gardens covering an area of 7 million m<sup>2</sup>.<sup>11</sup> These gardens lead to the violation of socially-oriented principles such as *Strong Social Interaction* (S1), *Strong Relations with Others* (I1) and *Reflection of the Concept of 'Ummah* (U4, L2). The violation is characterised in the social disintegration resulting from the great distance between dwellings arising from these numerous large gardens which greatly contribute to the large amount of vacant land in the city which totalled, as projected by Sert Jackson, 70,460 hectares out of a total metropolitan area of 121,500 hectares in 1990.<sup>12</sup> The Saudi economist, Walied Hashim, mentions in his analysis of the factors that have led to the increase in property values in Jeddah, that the existing metropolitan area of the city is capable of accommodating 10 times its present population.<sup>13</sup>

These public spaces also violate the Islamic principle of *Balanced Wealth Consumption* (I3). They constitute a waste of land not used by the public (fig. 7.5). In fact, these gardens were designed for artistic rather than social reasons. This fact is admitted by the former mayor of the city, who noted in his book, The Art Story of Jeddah, that these gardens were intended to provide pleasant superficially attractive amenities. He supported this by evaluating the artistic significance of the 350 sculptures distributed among these gardens and other spaces in Jeddah.<sup>14</sup> The Saudi planning and design theorist, Jamel Akbar, in his study of the urban problems of contemporary Muslim cities, comments on the economic aspect of these gardens by saying ,

The term "beautification" is well known among municipality officials. The mayor of Jeddah, for example, became famous for his strict control of the city, where there are many sculptures, sidewalks, marble seats on the streets, etc. But in such instance, the society's wealth is spent on public spaces that unlike dwellings, are the least used by the inhabitants ... It is ironic that the trees, which are supposed to filter the air and please the eye, are often found in these spaces least occupied by people as elements in the dispersed form of submission they require constant maintenance at public expense, dissipating the wealth of the society.<sup>15</sup>

These gardens are not used by residents for recreation for many reasons: a) their separation and isolation from the surrounding dwellings, b) lack of privacy, c) improper

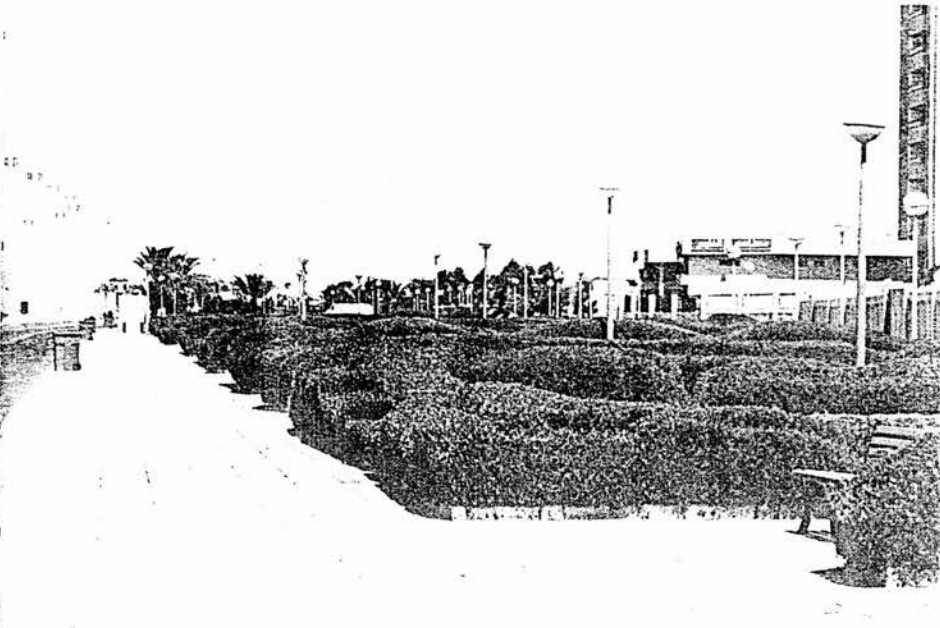
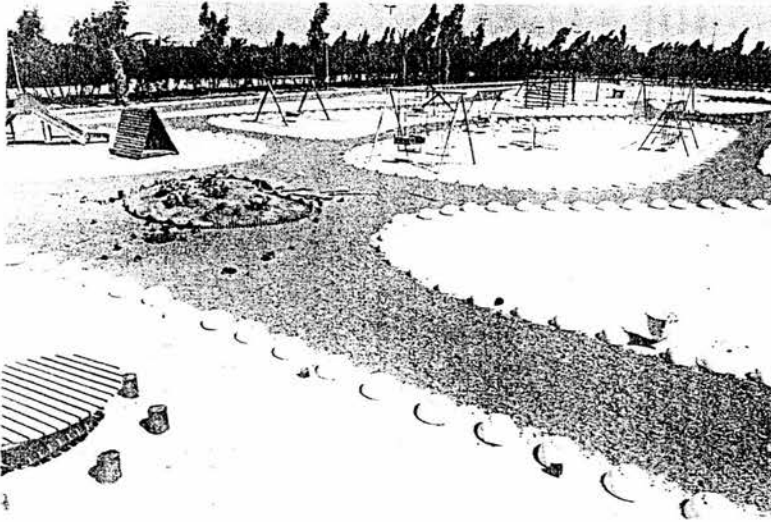
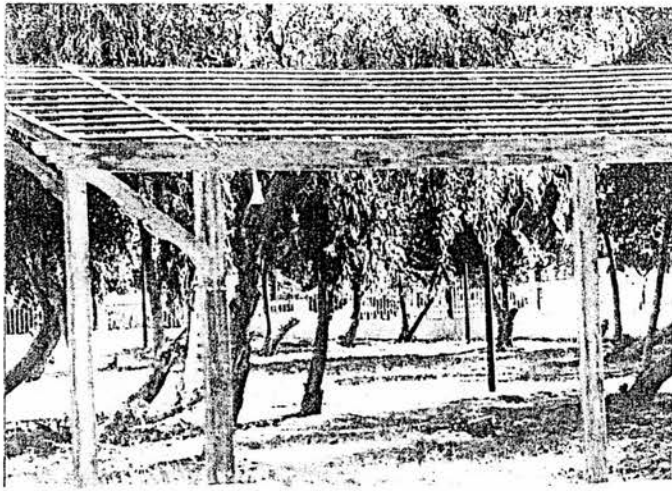


Fig. 7.5 Examples of expensively landscaped but little used public gardens and playgrounds.

location as some of them are surrounded by streets where traffic is heavy, d) absence of sequence of transition from streets to them and vice versa, e) inaccessibility to residents without a car, f) absence of design that protects users from climate, and g) lack of maintenance.

The economic loss which these gardens incur, is also indicated in the amount of water they use. For example, the gardens (513,486 m<sup>2</sup>) of the northern districts (80 km<sup>2</sup>) consume 950,000 gallons of water weekly.<sup>16</sup> This occurs in a city without natural water resources and where the public water supply is dependent upon desalination plants.

The widespread use of setbacks has also led to the dispersed urban form. These are intended to provide ventilation and light and to protect visual and aural privacy. However, these setbacks not only fail to achieve their purpose as discussed later in the house section of this chapter, but also violate many traditional principles at the urban scale. As they separate dwellings from each other by at least 4 m, they enlarge the distances between houses and extend the entire urban layout, thus reducing social communication particularly between neighbours. This is a violation of the Islamic principles of *Strong Social Interaction* (S1), *Strong Relations with Others* (I1), and *Reflection of the Concept 'Ummah* (U4, L2). Also, these setbacks violate the principle of *Close or Attached Dwellings* (U10, L9). They are also uneconomical as they increase tremendously the cost of installation, maintenance and operation of infrastructure and public services in the city. This is a violation of the principle *Balanced Wealth Consumption* (I3).

#### **7.1.2.3 Absence of Hierarchic Traffic Density (p4)**

The last master plan by Sert Jackson regulated the streets of Jeddah in a hierarchy of width and traffic function. However, in reality, this regulation is not achieved as most streets, regardless of the variety of their width and pre-planned function, are similar in traffic density (fig. 7.6). The division of the city into districts of apartments and villas

of high and low population density, makes the traffic density in a secondary or local street (e. g., 12-16 m) in an apartment area similar to that of the main street (40-60 m) in a villa district.

This absence of traffic and spatial hierarchies has created isolated sub-environments: the eminently public, which is the street, and the eminently private, which is the house. The absence of transitional space between these environments does not encourage social interaction. In this case, the traditional principles of *Strong Social Integration* (S1), *Strong Relations with others* (I1), *Outdoor Spatial Hierarchy* (L11), and above all *Streets of Functional Width* (U11, L10) are violated.

The uniformity of traffic density in Jeddah's new streets, the majority of which carry two-directional traffic, and the resultant absence of transitional space, do not support the urban level of privacy that is consistent with Islamic requirements for residential quarters. In his discussion of the lost privacy of pedestrians in modern Muslim cities, Yousef Belkacem says, "The new environment is not only oppressive, but also provokes a kind of behavioural alienation, e. g., women who have never before worn the veil in their own villages take to wearing it in the city, in a forlorn attempt to shield themselves."<sup>17</sup>

Many of the new streets exhibit traffic problems. High speed in wide roads, and congestion in the narrower ones have forced the local traffic authority to install large numbers of traffic lights, even on secondary roads which are planned for low traffic. These traffic lights have created disturbing consequences in streets such as Medina Road in the north where drivers can take at least an hour to cover 5 km. This has lately become a sensitive situation about which the press has constantly warned the authorities.<sup>18</sup> Meanwhile, because of their large number, most of the traffic lights are ignored by drivers which has led to many accidents.<sup>19</sup> Saleh Al-Amro, a columnist in Okaz, is of the opinion that the public or drivers' violation of traffic lights in Jeddah is a demonstration of dissatisfaction with both the traffic system and the road network of the city.<sup>20</sup>



In addition to traffic accidents, traffic jams in the new area constitute a health hazard through noise and air pollution. In her discussion of the contemporary neighbourhood of Arab cities including Jeddah, Asmahan Sofan wrote that 70% of street traffic noise penetrates buildings disturbing inhabitants.<sup>21</sup> *Okaz* supports this by saying that the noise caused by vehicles, especially trucks, in Jeddah's neighbourhoods persists for almost 24 hours each day. It warns the municipality that this noise has a serious effect on the health of infants and children particularly at night.<sup>22</sup> Moreover, the concentration of air pollution from heavy traffic contributes to severe diseases such as cancer. This is a violation of the principles *Preservation of Natural Balance* (U2) and *Prevention of Harming Public Rights* (U5, L3).

The uniformity of traffic density is associated with a shortage of car parking facilities. As the provision of adequate parking spaces has not been a major priority in the planning of the city road network, most people park in main and secondary roads therefore obstructing traffic circulation. This problem is also caused by the division of the city into districts of different population densities and dwelling types. In a district of apartment buildings where population density is high, almost half of the street width is occupied by parked cars. In a survey by Jamaludeen Salagoor in his research on the planning and building regulations of Jeddah's master plans, 58.4% of the householders who responded said they parked in the street in front of their houses and 26.8% in an adjacent street. Only 1.1% used a public car park.<sup>23</sup>

The traffic conditions of Jeddah's modern streets show an absence of segregation between traffic and pedestrians. This reduces the desire for walking and increases the reliance on a car. Less walking not only has health consequences, but also contributes to the lack of social communication, hence, the violation of the previously mentioned social principles of Islam.

In order to reduce traffic accidents, noise, air pollution, and other consequences, and to create a transitional private space between roads and dwellings, the municipality has recently closed some streets in new neighbourhoods (fig. 7.7). Nevertheless, Jamel

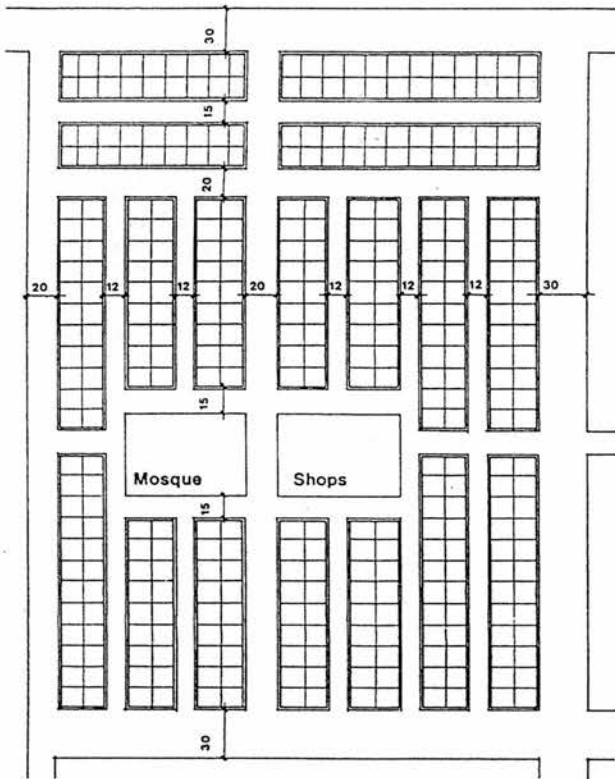
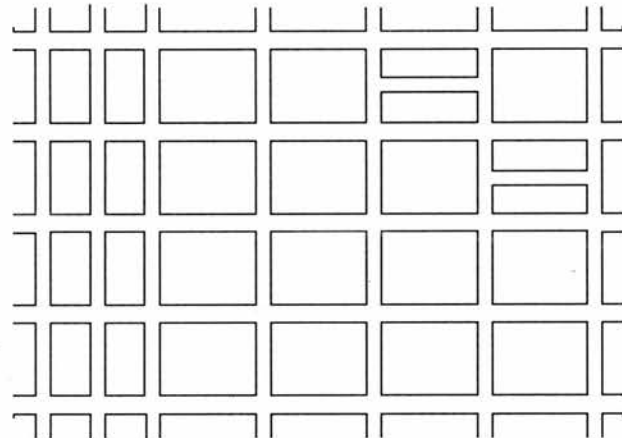


Fig. 7.6 Streets of width hierarchy but with a tendency of similar traffic density.

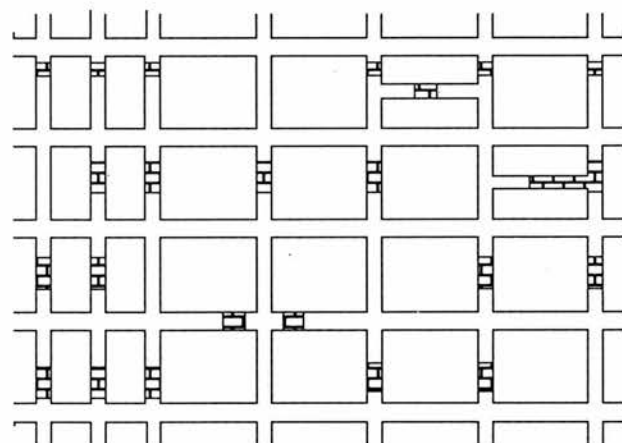
(Plan from J. Boon, "The Modern Saudi Villa: Its Cause and Effect", The Arabian Journal for Science and Engineering, 7.2, 1982, p. 133.)

Fig. 7.7 Improvement of street pattern by closing some streets in order to create an outdoor spatial hierarchy.

(Source: Sert Jackson Int./Saudconsult, "Finale Report: Jeddah Action Master Plans, Technical Report No. 7, Revision and Updating of the Existing Master Plan", 1979, p. 182.)



Existing



Improved

Akbar criticises this solution by observing that the new dead-ends or cul-de-sacs are socially ineffective. He claims that, for residents, these streets are no different from the through-streets. As they are based on the contemporary grid pattern, these dead-ends are rigid and dull and their width and occupation by parked cars do not provide enough privacy for either pedestrians or inhabitants.<sup>24</sup>

For reasons discussed above in this section, people are forced to remain indoors, leading to a possible increase in the heavy use of air conditioning, thus violating the Islamic principle which calls for *Balanced Wealth Consumption* (I3).

#### **7.1.2.4 Large Urban Blocks (p5)**

Many modern districts in Jeddah are planned with long blocks divided into lots for houses. Figure 7.8 shows an example of these blocks, one of which is around 400 m long. Such long blocks demand one to drive or walk a considerable distance to reach a house in the same row or in an adjacent block. It leads to less social communication and thus a violation of the traditional principles of *Strong Social Interaction* (S1) and *Strong Relationships with Others* (I1). Yet, one might argue that the idea of terraced dwellings of a similar length helps to solve this problem as it reduces empty spaces between blocks. This might be true, but the sub-division of a neighbourhood or a group of blocks does not have to be based on a grid-iron pattern or large blocks of longitudinal shapes. Small blocks of many houses with fewer streets could be formed by, for example, organic, irregular or integrated sub-division(s).

#### **7.1.3 Absence of Macro-Climatic Treatment (p6)**

The dispersed urban form aggravates the impact of the harsh hot climate of Jeddah. In addition to their large size, the amount of asphalt that covers urban spaces intensifies the climatic extremes. The outdoor spaces, particularly the streets, are not protected from the rays of the sun and heat. Although most streets in the northern area are planted, their trees neither provide enough shade nor filter the dusty polluted air, as their existence is merely decorative. As a result, these spaces are not attractive and people

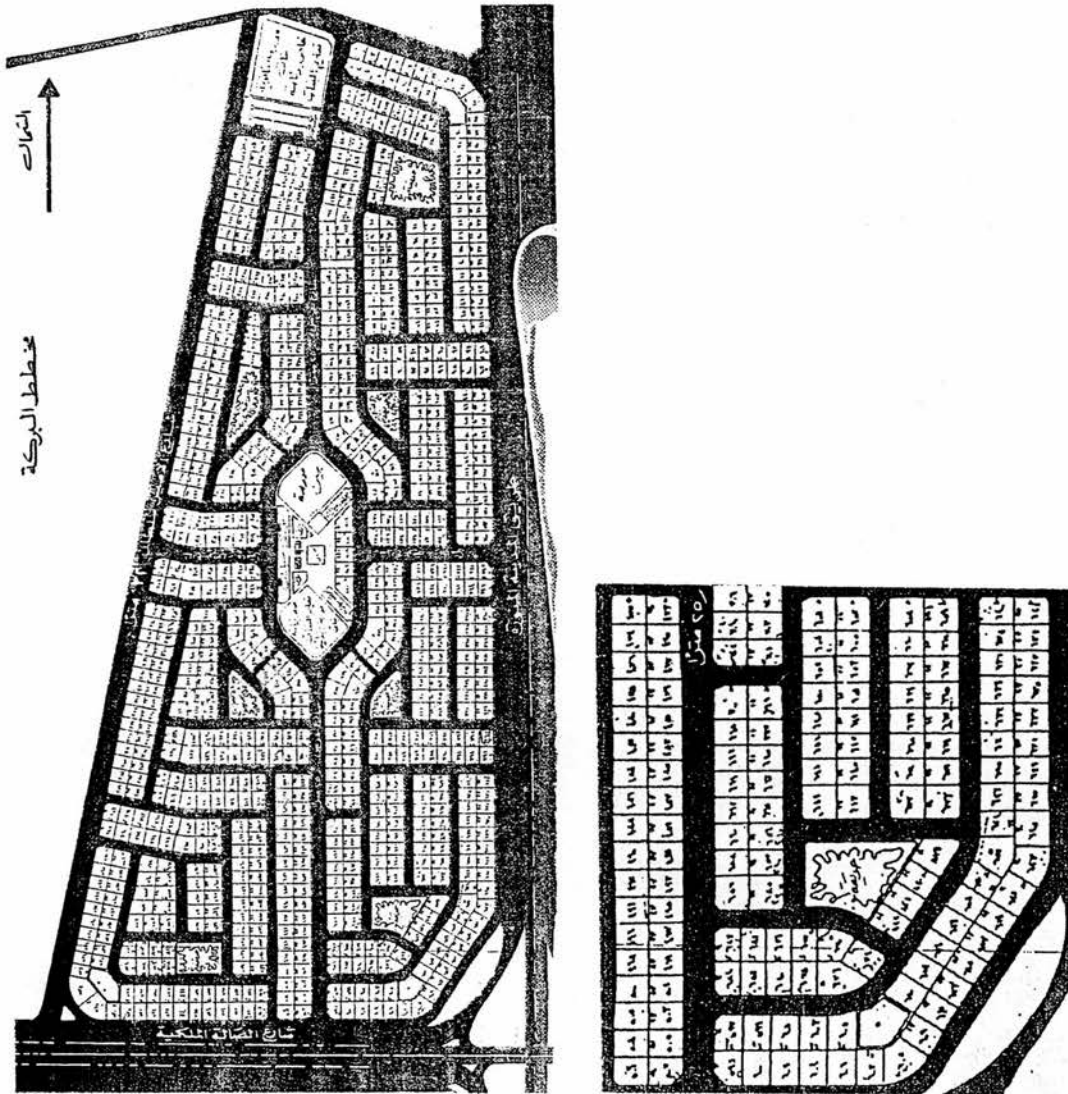


Fig. 7.8 An example of neighbourhoods where the length of some blocks is between 300-400 m.

(Map from Asharq Al-Awsat, July 25, 1991, p. 6.)

hurry indoors to protect themselves from the heat and glare. As it reduces social contacts, this lack of concern for urban climatic modification leads to the violation of the traditional Islamic principle of *Strong Social Interaction* (S1), *Strong Relations with Others* (I1) and *The Reflection of the Concept of 'Ummah* (U4, L2). Also it contributes to the violation of the principle *Mosques Accessible by Walking* (L13) when people avoid walking in the unprotected streets. The economic aspect of this problem is indicated not only in the reduced use of streets by pedestrians but also in the increased reliance on air-conditioning. This means a violation of the principle *Balanced Wealth Consumption* (I3). In fact, people have become accustomed to the artificially cooled environment of their houses which are also affected by the unprotected outdoor surfaces. After extreme heat falls on the wide exposed asphalt streets and on the buildings, it is reflected back inside these buildings.

#### **7.1.4 Unjust Socio-Urban Zoning**

##### **7.1.4.1 Residential Typology and Zoning Based on Socio-Economic Levels (p7)**

Jeddah is divided into several districts to each of which different rules concerning minimum plot size, maximum permissible ground coverage, maximum floor area ratio, maximum number of floors, and setbacks, are implemented. It includes five major categories of residential zoning:

- a. low density (less than 75 p/h) single family villa zone;
- b. medium-low density (75-125 p/h) single and two family house zone;
- c. medium density (125-127 p/h) single, two and more multi-family house zone;
- d. medium-high density (175-250 p/h) two, three, and more multi-family house zone; and,
- e. high density (above 250 p/h) two, three and more multi-family house zone.

From a socio-economic point of view, such a classification divides the city into three areas, each of which is inhabited by an income class: high, middle, and low. Each area has its own image of wealth or state of economy. The northern and eastern sides of the city are the quality areas, where high and middle income families live in low or medium density of low rise housing. On the other hand, the low income population live in the south, in crowded, poor quality, housing. In his discussion of law and environment in the Middle East, Jamel Akbar comments on such division:

Parts of the environment are well lit and well planted at the expense of other neglected areas occupied by poor users ... This environment is unequal in terms of quality; the areas of the wealth are well infrastructured and the domain of the poor is neglected... This opens other doors for those who want to move from the poorer team to join the upper class team by any means even through corruption. The problem is no longer a professional one, it is becoming a moral one and getting worse every single second.<sup>25</sup>

Although it is inhabited by high and middle income families, the northern area, where modern apartment and villa housing forms exist, exhibits a division among income groups particularly in land division. In this area, the rich districts consist of lands of an average area of 1800 m<sup>2</sup> each, the middle income 600 m<sup>2</sup>, and the lower middle income 400 m<sup>2</sup>. This limitation of lot size has automatically led to a social segregation. The inhabitants who can afford a lot of 400 m<sup>2</sup> only live in the districts or neighbourhoods whose typical lots are 400 m<sup>2</sup> each, and so on. This division is enhanced by the type of dwellings assigned to each district. There are separate neighbourhoods composed of apartment buildings inhabited by lower income families and others of villa dwellings occupied by the higher income households.

The division of the new districts as well as the entire city on a socio-economic basis breaks the coherence of the society. As it isolates the income groups from one other and reduces communication between them, this zoning violates many principles such as *Social Justice* (S2) and *Integration of Different Socio-Economic Groups* (U9, L5). It also violates other socially-oriented principles such as *Reflection of the Concept of 'Ummah* (U4, L2) and *Strong Social Integration* (S1).

### **7.1.5 Inaccessible Urban Land Uses and Facilities**

One of the major goals of the second and last master plan is to distribute equally facilities and public services among the city's neighbourhoods.<sup>26</sup> It fails singularly in this respect as the master plan applies equal land use percentage (i. e. 30% of the total area) for public services (e. g., schools, shops, clinics, and public open spaces) and roads to all residential districts regardless of the variety of their population densities. Resulting from this, high density districts regulated for apartment housing get less facilities per house unit than those for villas where a low density of population exists. This imbalanced distribution of facilities in response to population density or number is also supported by the rule of minimum lot size. The specification of minimum lot size such as 400 m<sup>2</sup> and floor number has created areas of high population density, and the amount of facilities and services such as electricity, telephone and sewage connections is less than the actual need of inhabitants in comparison to districts where the assigned minimum plot size is, for example, 600 m<sup>2</sup> or more.

In order to provide a better distribution of facilities, the master plan proposed a hierarchy of centres to be distributed between districts. Again, this proposal has not achieved its objective as commercial facilities are concentrated along major roads of 40m or wider.

The separation of land uses from each other also adds to the consequences of the imbalanced distribution of services in modern districts. Designating areas for housing, commerce, recreation, education, etc., requires a more elaborate communication or transport system than would otherwise be necessary.

The scarcity of facilities in some northern areas presents difficulties for most inhabitants. It is not uncommon nowadays that when someone living in an apartment or villa is connected with, for example, the telephone network, they advertise this event in a newspaper and invite friends and relatives to celebrate with them.<sup>27</sup>



The violation of traditional Islamic principles by inaccessible urban land uses or services in the modern areas is evident in three types of land use: mosque, commercial and education.

#### **7.1.5.1 Mosque**

##### **7.1.5.1.1 Disproportional Distribution of Mosques (p8)**

The modern urban layout which is formed by long wide streets, large open spaces and setbacks between dwellings reduces the traditional function of the mosque as a place that embodies the spiritual needs of Muslims and strengthens their relationships. Resulting from this layout, the mosque may no longer be within walking distance. Salagoor points out to this matter as saying,

Using the proposed gross density standard [3.7 h/1000p] and the land use rate [30% of gross site area] for community services, and, compared with distance, we find the following. In the low density area [where villa houses are built], the location of mosque usually will not be within walking distance, and sometimes will be very remote from some dwellings, compared with those in high density. One can find, according to the planning radius, that the maximum distance of the local mosque from the dwelling may be 460 m in the low density area.<sup>28</sup>

In fact, Salagoor's statement in regard to the maximum distance of the local mosque is a master plan rule that considers the mosque as a service element only to serve an area of 400-500 m in diameter regardless of the housing type, lot sizes, and population density of that area.<sup>29</sup> The resulting large distance requires people to go to the mosque by car instead of walking, and sometimes only a small number of residents benefit from a mosque, compared with the high density areas of apartment dwellings where mosques are sometimes overcrowded.

This inaccessibility to the mosque violates the traditional principles of *Equal and Proportional Distribution of Mosques* (U12, L12) and *Mosques Accessible by Walking* (L13). Because of the great distance to the mosque, people are sometimes discouraged to go and prefer to pray at home. This reduces the traditional religious habit of meeting five times a day for prayers together. It is a violation of other principles such as *Strong*

*Social Integration* (S1) and *Strong Relations with Others* (I1). Although some people may walk or drive long distances to mosques, the stress engendered from walking or driving in the hot and unpleasant outdoors does not fulfil the Islamic principle which requires worshippers to concentrate on their prayers and listen to the Friday address with calmness and peace of mind.

#### **7.1.5.1.2 Irrelevant Locational Relationship between Mosques and Shops (p9)**

In modern neighbourhoods where centres are pre-planned to accommodate both mosques and shopping activities, shops are built while mosques are not, or vice versa. This irrelevant relationship between the locations of mosque and shops has resulted from permitting the location of shops on wide (i. e. 40 m or more) streets. In turn this leaves mosques surrounded by vacant plots. The situation is more obvious in many northern neighbourhoods where mosques are far removed from shops. This is a violation of the traditional principle of *Commercial Necessities Close to Mosque* (L7).

#### **7.1.5.2 Commercial**

What has been discussed above in regard to the imbalanced distribution of mosques that has resulted from indiscriminate application of a similar facility ratio to all residential zones, is applied to the commercial facilities also. In other words, there is a violation of traditional principles and it occurs because of the following:

##### **7.1.5.2.1 Disproportional Distribution of Shopping Necessities (p10)**

The location of shops in the new areas is more influenced by the zoning system which separates land uses from each other and concentrates shops on wide main streets. Consequently, most people often have to drive long distances in order to purchase their basic daily needs from a supermarket or a shop several blocks away. Indeed, more than 50% of all shopping trips by Saudi households are made to the city centre. Such a situation increases the rate of traffic accidents in commercial spine routes leading to the

city centre.<sup>30</sup> Above all it violates the principle *Commercial Necessities Accessible to Inhabitants* (L6).

#### **7.1.5.2.2 Shops in Residential Buildings (p11)**

Shops in apartment buildings on wider roads are a source of visual intrusion. Females living on the upper floors of these buildings would feel uncomfortable when entering the building, having to pass by these shops where males are sitting. Also, the privacy of the front dwellings is affected, regardless of the street width (fig. 7.9). According to Tariq Durani's survey of 108 new houses in Jeddah, 56% of the respondents were not satisfied with this mixture of commercial and residential activities in one building because of the generated privacy problem.<sup>31</sup> This is a violation of the principle *Consideration of Housing Privacy when Locating Commercial Activities* (L8)

#### **7.1.5.3 Education**

##### **7.1.5.3.1 Disproportional Distribution of Schools (p12)**

The principle *Equal and Proportional Distribution of Education Facilities* (U13, L14) is violated by the percentage of facilities indiscriminately applied to all districts. There are many areas with only a limited number of schools and some with none at all. According to Alharbi's survey, 80.2% of the householders who responded to the survey and live in modern apartment areas move from one district to another because of the unavailability of schools.<sup>32</sup>

## **7.2 FACTORS OF VIOLATION IN THE NEIGHBOURHOOD AND HOUSE SCALES**

The new housing patterns of villas and apartments are accepted by society for two reasons. The first is that people have no other choice than these patterns whose preponderance is due to both building and planning regulations and the architectural ideology of designers. The second is the conception of people that they conform with

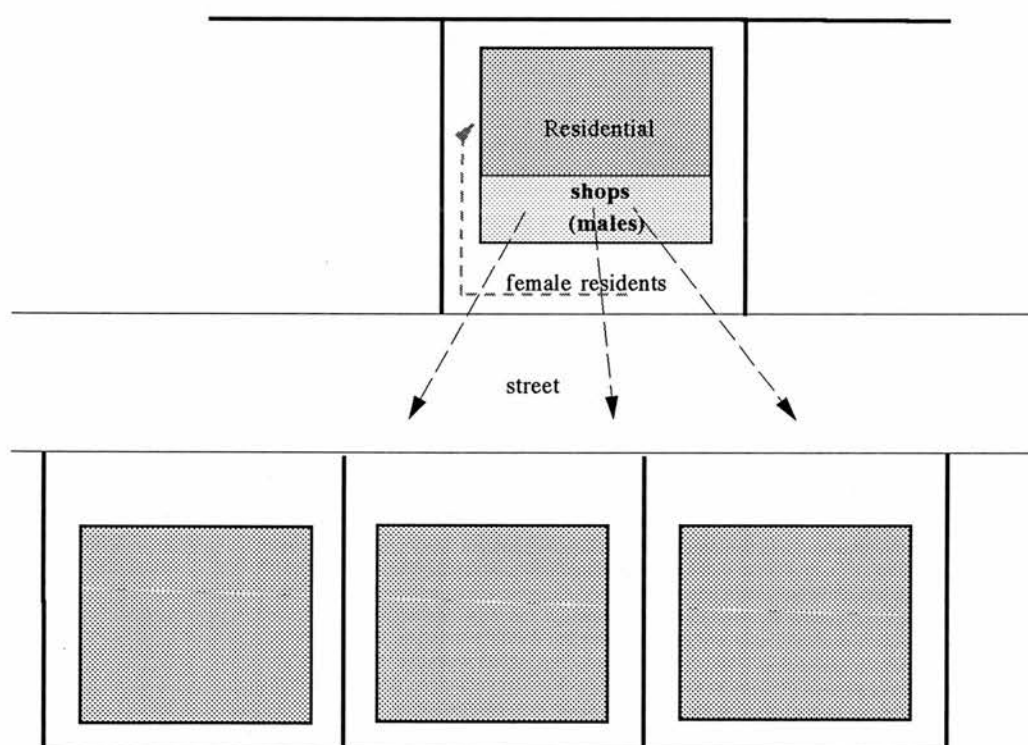


Fig. 7.9 The visual intrusion created by shops in the ground floor of an apartment building.

their idea of "modernity" with which many people are obsessed. However, there is a growing trend of public dissatisfaction with these dwellings, particularly the apartments. This is reflected in the current trend of abandoning apartments in favour of land on which to build villas.<sup>33</sup> Also, it is reflected in the continuous modification that inhabitants make illegally to these houses in order to meet traditional requirements, such as privacy and family extension.

Regardless of public acceptance or rejection of these patterns, their design characteristics violate many traditional principles of Islam at both neighbourhood and house scales. The following sections discuss these features and the resultant violation.

### **7.2.1 Visually Intruded Spaces (i1)**

Tracing the plans of Jeddah's new villas and apartments on the principle of privacy, these dwellings are visually intruded in two ways: external and internal.

#### **7.2.1.1 External (i2)**

All apartments and villas contain external elements that are a source of visual intrusion to the interior and exterior spaces of neighbours and vice versa. These elements; setbacks, balconies, windows and rooftops, not only violate the traditional principles that require the preservation of *Site* and *Plan* visual privacy (H1 and H2), but also contribute to the violation of socially-related principles such as *Avoidance of Damaging Neighbouring Housing Rights* (N2, H7), *Making the House a Source of Strong Neighbourliness* (H12), and *Strong Neighbourly Relations* (N1). This violation is caused because these elements abuse the rights of neighbours and sometimes lead to conflicts between them.

##### **7.2.1.1.1 Setback (i3)**

The setback spaces of 2-3 m at each side of a building from neighbouring setbacks onto which windows and balconies open, provide the opportunity for visual intrusion from neighbouring dwellings and streets (figs. 7.10-7.11). According to Al-Saati's

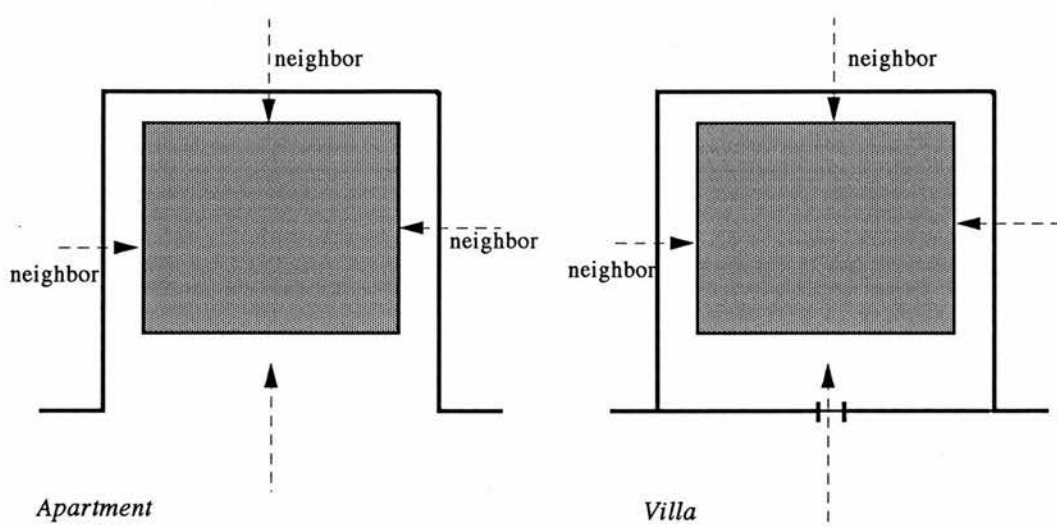


Fig. 7.10 External sources of visual intrusion on the indoor privacy of apartment and villa dwellings.

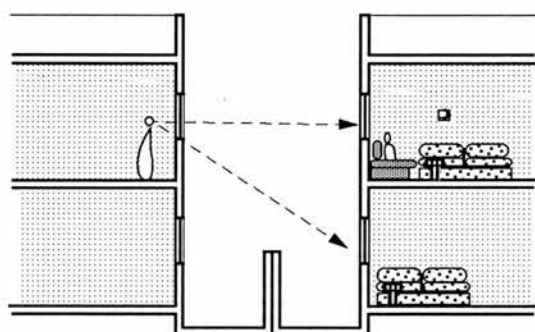
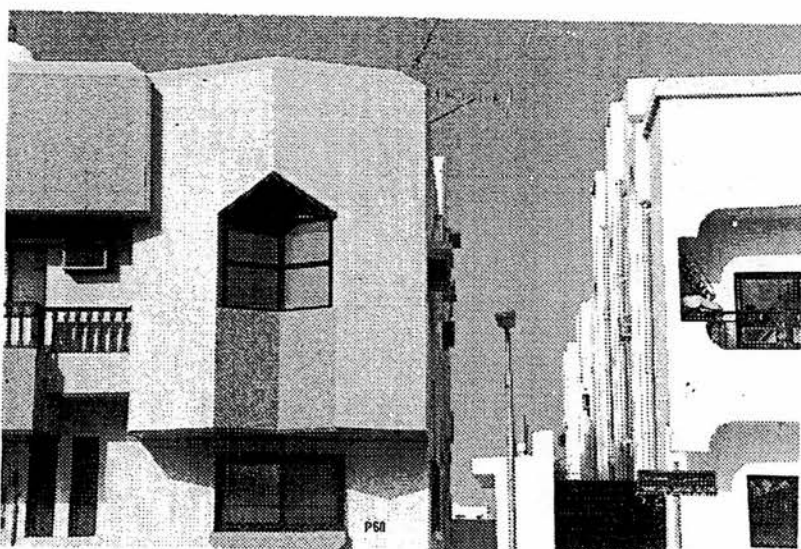


Fig. 7.11 Visual violation of other dwellings privacy through side or rear setbacks.



survey, 69.6% of the householders who responded complained about privacy intrusion created by the side setbacks,<sup>34</sup> which indeed violate the traditional principle of *Site Visual Privacy* (H1).

There is always a potential for social tension and argument between neighbours because of the side setbacks. Due to privacy intrusion particularly on the ground floor, inhabitants, especially of villas, are forced to elevate the surrounding side walls with a steel frame clad with corrugated aluminium or plastic sheets with an angled edge to add more screening (figs. 7.12-7.13). Alharbi mentions that 70% of the respondents to his survey who lived in new dwellings complained about the exposure of their setbacks and balconies. They assumed that it was a common practice to enclose dwellings and their costly facades behind these monotonous sheets.<sup>35</sup> These screens create a tiny narrow yard surrounding the building on three sides. Sometimes neighbours cannot agree because of the consequences of the elevated walls which are sometimes as high as the building itself (i. e. 6-9 m). This screening violates the traditional principles of *Making the House a Source of Strong Neighbourliness* (H12) and *Avoidance of Damaging Neighbouring Housing Rights: Natural Light and Air* (H8). The violation of the latter principle is indicated in the blocking of natural air and sun from reaching neighbouring dwellings particularly their ground floor spaces (fig. 7.14). Also these high walls reduce the chance of renting the affected (less ventilated and poorly lit) apartments. In this case, the owner whose income may depend on his apartment building is jeopardised. Resulting from a long vacancy, the affected apartment(s) deteriorates over time. Also the protected setbacks become dull, narrow and almost unusable. This contributes to the violation of the principle *Balanced Wealth Consumption* (I3).

The visual intrusion by neighbouring balconies, windows and roofs is also applied to the front setback (figs. 7.15-7.16). Villa front setbacks are viewed from adjacent dwellings. Also, when the large front gate is open, the inside of the villa is visible to passers-by. This problem is maximised by the absence of a transitional space between the street and the space behind the gate. In the case of apartment housing, the privacy of



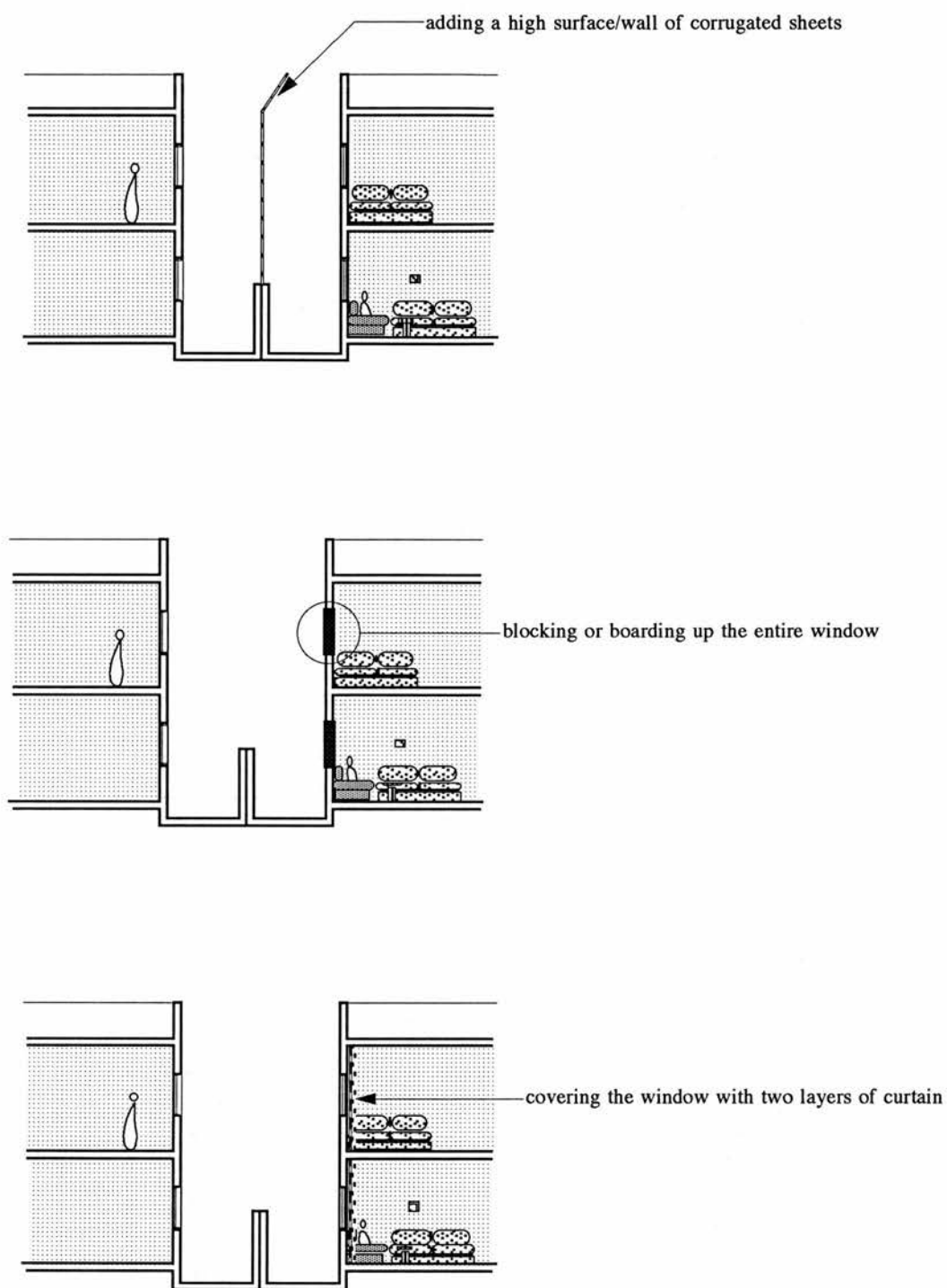


Fig. 7.12 Solutions adopted by inhabitants to prevent external visual intrusion from or through side and rear setbacks.

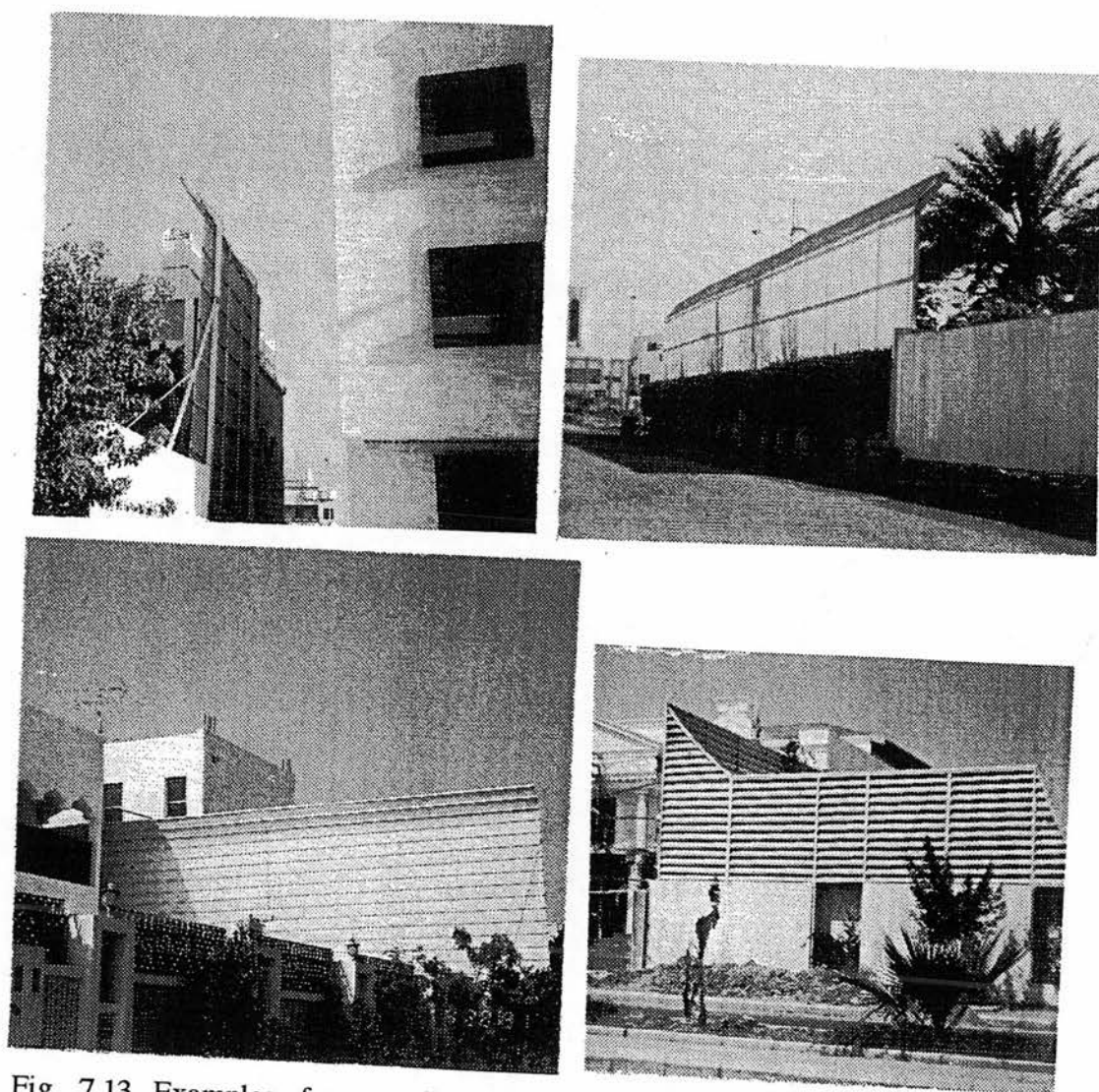


Fig. 7.13 Examples of surrounding the villa by high corrugated aluminium walls at its four or three sides to prevent nearby and far visual intrusions.

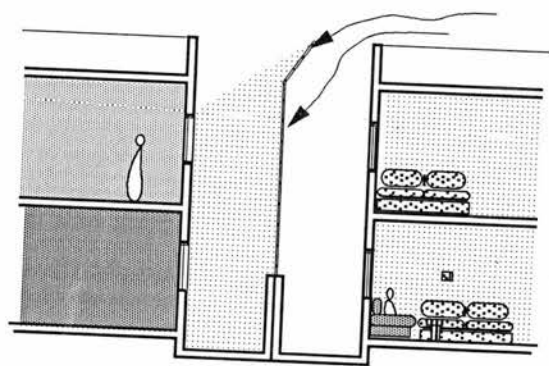


Fig. 7.14 Blocking natural air and light of neighbours is the primary damage caused by high corrugated aluminium walls adopted for privacy protection of setbacks and windows.

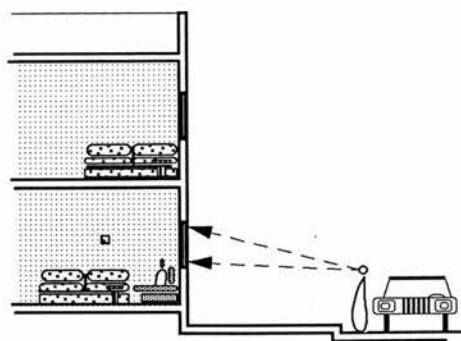


Fig. 7.15 The exposure of the front interior spaces of ground floor apartment to the public vision in the street.

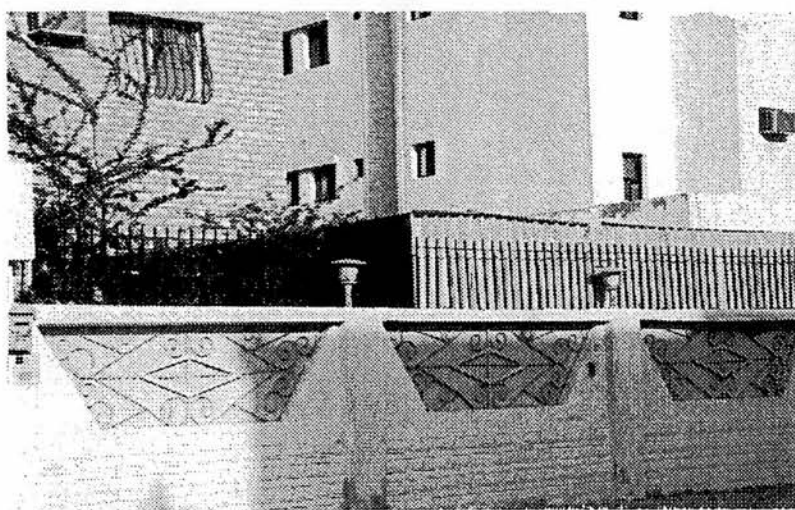
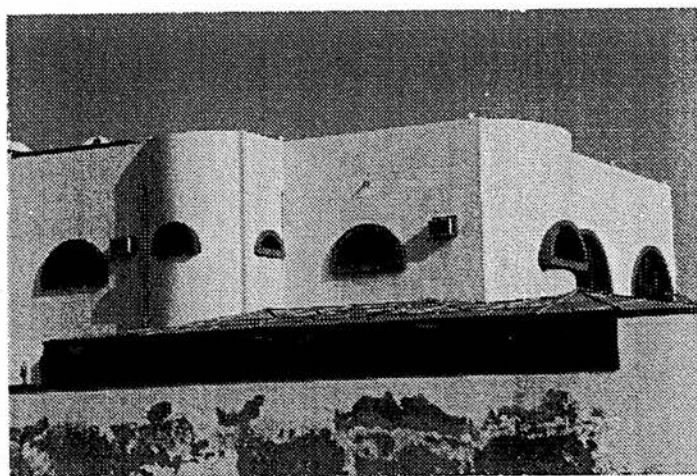


Fig. 7.16 Examples of roofing the front setback or part of it in the villa in order to prevent visual access from opposite dwellings.

the ground floor space is also intruded upon as the setback is completely open to the street. The rooms behind the front windows of that floor are visible to people passing in the street and to residents of the houses opposite.

The lack of privacy in the setbacks, particularly to the front, frequently affects the rhythm of socialisation of the residents. The front setback of villas is designed as a space where the family can socialise during the evening. But in the absence of privacy, womenfolk, who spend more of their day at home than other family members, do not have proper outdoor space where they can enjoy the privacy of their own house. Because of this problem which is aggravated by the reduced contacts with neighbours due to great distances between dwellings, women are becoming stressed and their freedom is further constrained.

#### **7.2.1.1.2 Balcony (i4)**

Balconies which are also supposed to be a place of entertainment, are not private. Being exposed to the sight of people in the street and surrounding dwellings, these balconies are a violation of the traditional principle of *Site Visual Privacy* (H1). Al-Saati's survey reveals that 70% of householders who replied complained about this privacy problem, and nearly a third of the respondents had been forced to adopt some form of protection of their privacy. It was essential to board up or close their balconies by, for example, corrugated sheets<sup>36</sup> (figs. 7.17-7.19).

#### **7.2.1.1.3 Windows (i5)**

The setbacks of both villas and apartment buildings encourage a tendency to open windows on all four sides, overlooking neighbouring houses which are at the same time overlooked by other neighbours and passers-by in the street. Being a source of external visual disturbance, these windows violate the traditional principle of *Site Visual Privacy* (H1). This intrusion is not only caused by the large size (approximately 1.2 x 2 m) of the windows and their glass, but also from their location facing each other (fig. 7.20). The problem is particularly evident in the rear and side setbacks where the distance

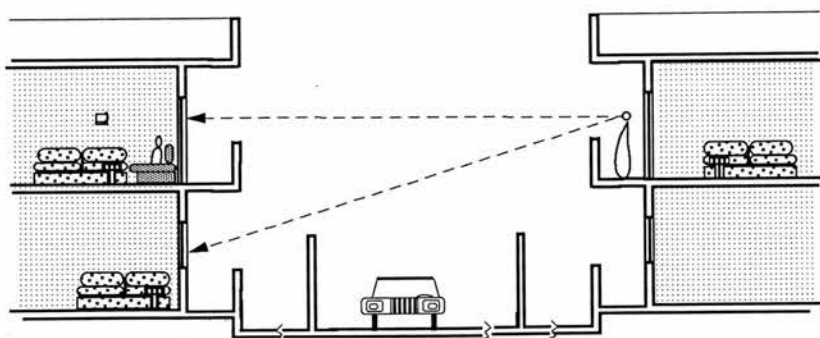


Fig. 7.17 Visual intrusion into the balcony of villa by neighbours.

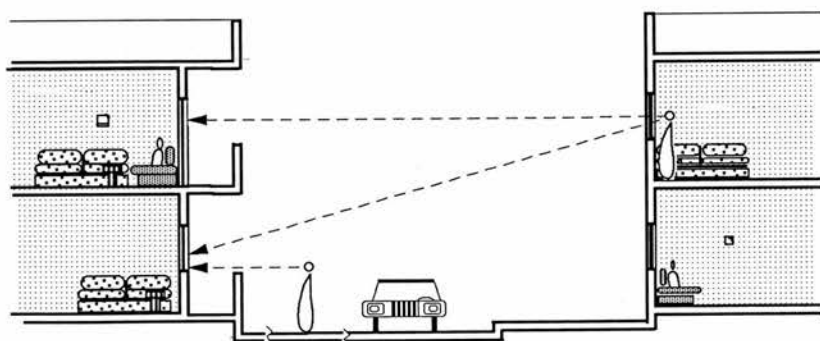
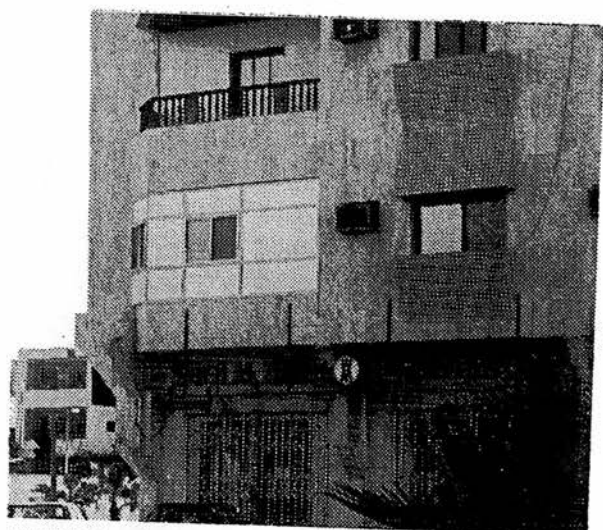


Fig. 7.18 The front balcony is the most visually viewed space in the ground floor apartment by street passers-by and inhabitants of opposite dwellings.

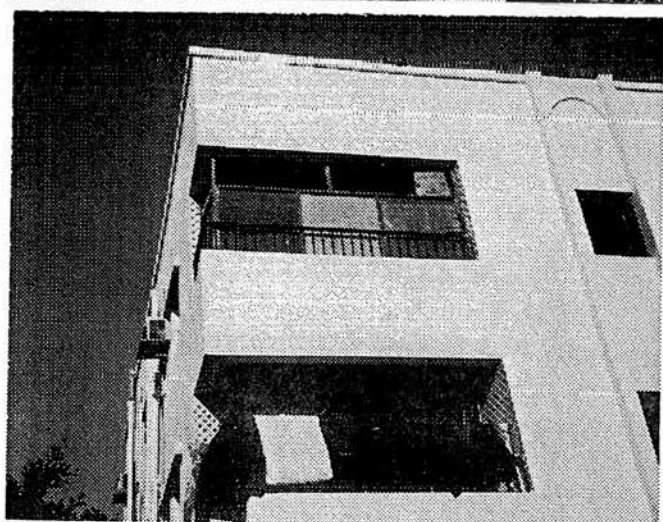




Fixed high aluminium wall



Movable wooden screen



Fixed wooden boards



Sheet of cloth or canvas

Fig. 7.19 Different solutions adopted by inhabitants of both apartments and villas in order to prevent any external visual intrusion into or through balconies.

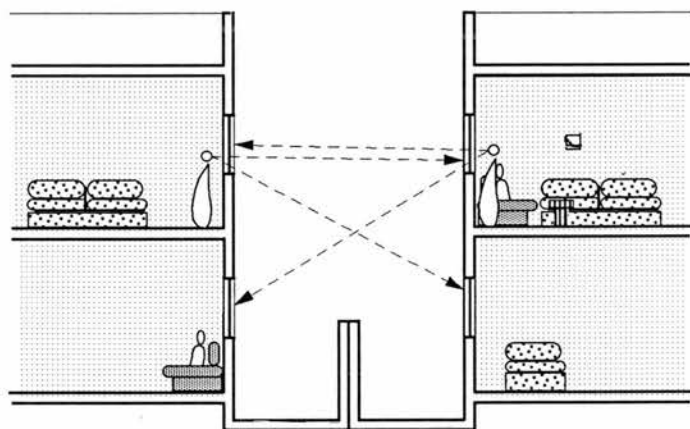
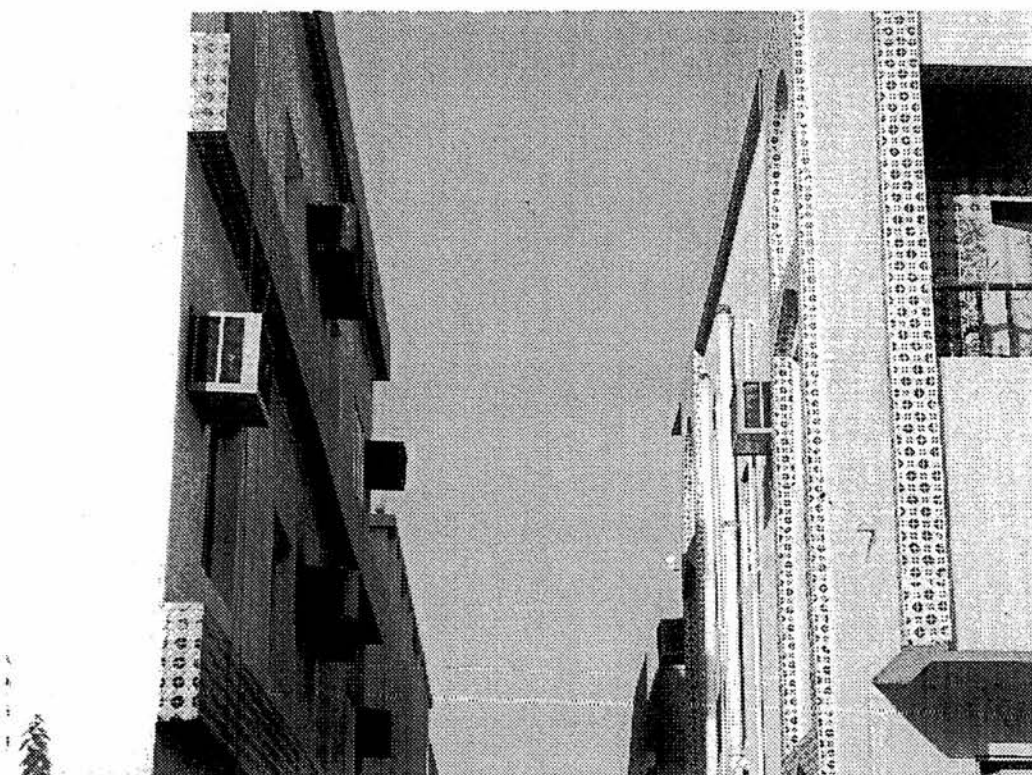


Fig. 7.20 Large glass windows facing each other with a small distance (4m) in between are an external source of visual intrusion into the interior of both villas and apartments.



between opposing windows is 4 m. This exposes the entire space behind a window to the sight line from the window facing. Al-Saati's study mentioned that 52.3% of the respondents complain about this exposure.<sup>37</sup> Consequently, many inhabitants board up their windows or screen them by high aluminium walls around the setbacks in order to prevent intentional and unintentional intrusion. Other windows are simply covered by heavy dark curtains. Yousuf Fadan points out in his research on the development of the built environment of Saudi Arabia that some owners make radical changes either in the location of windows or the arrangement of spaces during or after the construction.<sup>38</sup>

#### **7.2.1.1.4 Roof and Height Variation (i6)**

Although most residential areas of the north of Jeddah are restricted to 2 storey villas and 2-3 storey apartment buildings, properties located on wide roads of 40 m or more, are permitted to build apartment blocks of more than 3 floors. This mix in building heights without any real consideration for the safeguarding of the privacy of the surrounding low-rise dwellings sharply contrasts with the principle *Site Visual Privacy* (H1). As roof areas of low rise houses are completely overlooked from neighbouring higher buildings, it is becoming commonplace for people to cover the roof of their villas with aluminium sheeting. Indeed, this is considered illegal by the municipality whose reaction is to require the demolition of these interiorised roofs.<sup>39</sup> The exchange of visual intrusion between neighbours also exists in dwellings of similar heights. A person standing on a roof whose parapet is usually low (1 m) can easily see the surrounding setbacks, balconies and windows (figs. 7.21-7.22).

#### **7.2.1.2 Internal (i7)**

##### **7.2.1.2.1 Spaces Visually Intruded by Guests (i8)**

According to Al-Saati's survey, 31.2% of the householders replied that members of the family, especially females, have difficulty in moving about the house when guests are present.<sup>40</sup> This lack of privacy inside the house forces inhabitants to rely on doors always being closed to prevent accidental visual intrusion from the guests' domain.

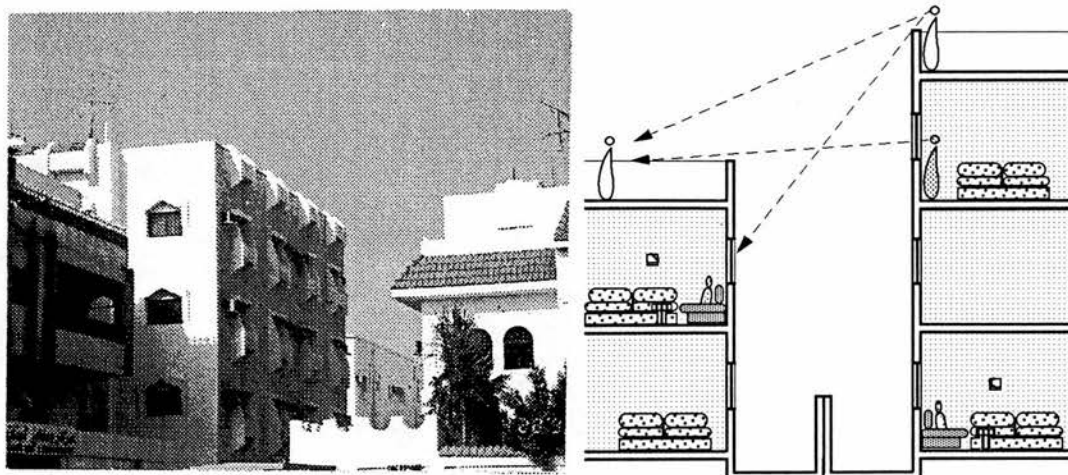
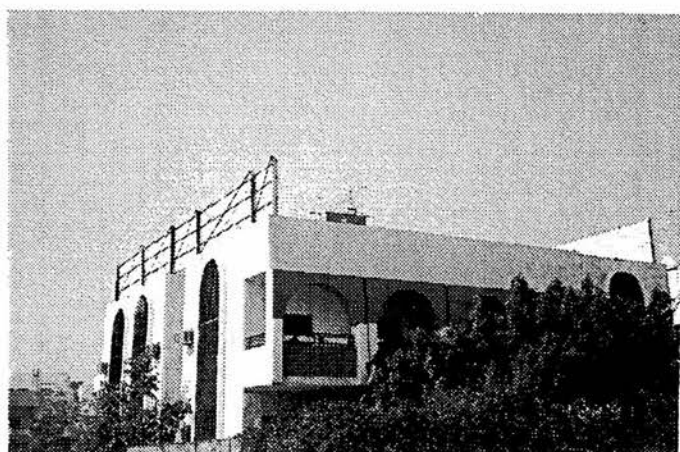
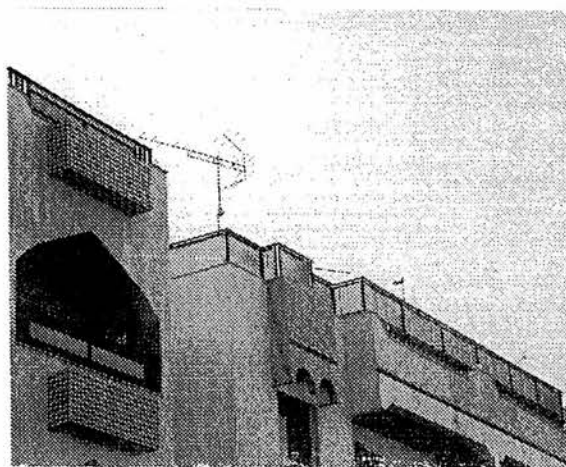


Fig. 7.21 Visual intrusion into roofs caused by high buildings on main streets and backed by low-rise dwellings. This problem is also resulted from the continuous change in the regulation of building height and type where 2 storey villa buildings are affected by 3 or more storey apartment buildings.



High corrugated aluminium wall



Plastic wall added on the top of the parapet



Canvas structure

Fig. 7.22 Various solutions adopted by inhabitants of villas to maintain the privacy of roof.

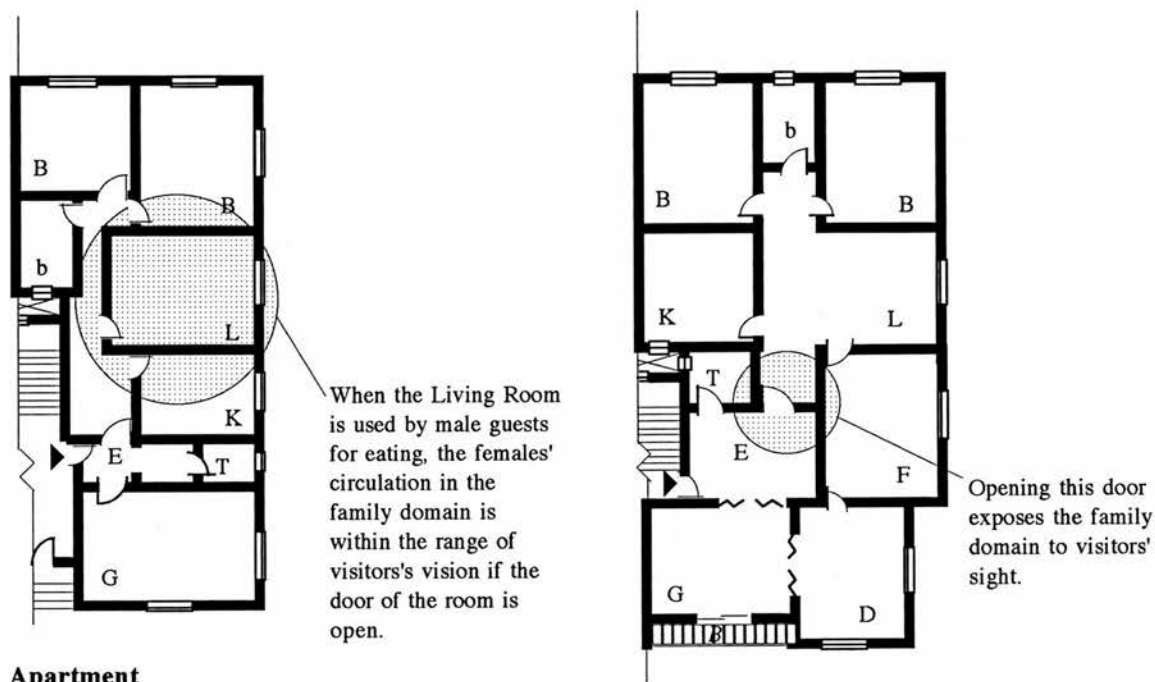
There are several areas in both apartments and villas where the privacy of the resident family is within the visual range of visitors (fig. 7.23). For example, the entrance lobby of the villa cannot be used by female occupants when there are male guests entering the house or using the guests' section on the ground floor. In the apartment, the circulation between kitchen and dining room is also visible by a guest entering the bathroom or other spaces in the visitors' domain. This problem is more apparent in small apartments where the guests' toilet is not hidden and the main corridor between the family and guests' domains is relatively short. In this case, women are trapped either in the kitchen or in the living room.

The privacy of the kitchen is not maintained in some villas and small apartments. Everytime the kitchen door is opened, the housewife in the kitchen can be seen by guests. Furthermore, the opening of kitchen door onto the living room in the apartment which is also used by guests for dining, prevents the housewife from using the kitchen if there are male visitors in the dining room.

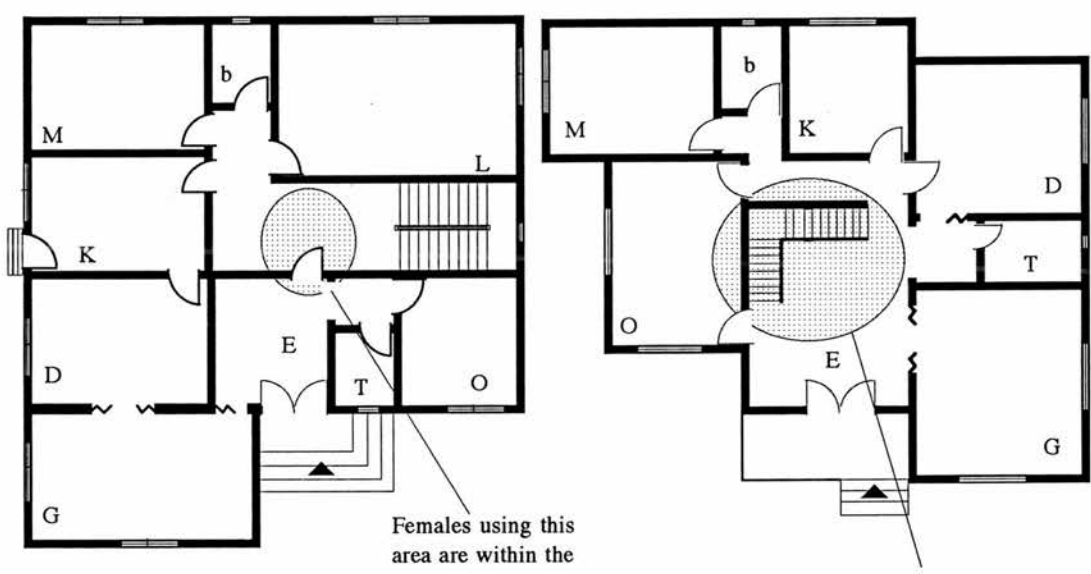
The privacy intrusion occurring inside apartments and villas from the guests' area due to the improper spatial arrangement, is a violation of the traditional principle of *Plan Visual Privacy* (H2). Alharbi's survey pointed out that 41.6% of the respondents had made some changes to inside of their apartments. Some of them have demolished some walls and added others in order to increase the privacy of family rooms while others have simply hung curtains across some doors<sup>41</sup> (fig. 7.24).

#### **7.2.1.2.2 Spaces Visually Intruded by Neighbours (i9)**

In addition to the external sources (e. g., balconies and windows) which expose the interior of the apartment and villa to the view of neighbours, the entrance door of these dwellings and the lack of transition between the outside and inside of the house provide an opportunity for more visual intrusion into the house by neighbours. Almost all apartment front doors face each other, as do most villa gates, allowing people passing by them or entering their houses intentionally or unintentionally to see the inside. This



**Apartment**



**Villa**

Fig. 7.23 Spots where the privacy of spaces used by the family are within the range of visitors' vision.

problem is worse in apartment buildings where the central staircase is shared by all residents, and once the apartment door is opened, the interior is immediately open to the view of users of the staircase or hallway (fig. 7.25). This is a major problem for many (39.4%) of the respondents to Al-Saati's survey.<sup>42</sup> It is another violation of the principle *Plan Visual Privacy* (H2).

#### **7.2.1.2.3 Spaces Visually Intruded by Inhabitants: Visually Exposed Circulation between Bedrooms and Bathroom (i10)**

Family members passing the lobby between the bedrooms to use the rear bathroom can see inside the bedrooms if their door is open. This intrusion results from the location of the bathroom between the bedrooms with no transitional space between them. This is against the traditional Islamic principle of *Plan Visual Privacy* (H2). Jamel Akbar suggests in his study of the contemporary houses of Riyadh that such bathroom location should be avoided. He recommends shifting it towards the living room and kitchen.<sup>43</sup>

#### **7.2.2 Acoustically Intruded Spaces (i11)**

Acoustic privacy is not well provided for most villas and apartments. Their thin unsound-proofed walls (15-20 cm) and roof transmit occupants' voices beyond the unit. According to Al-Saati's survey, 45.0% of householders replied that they could hear their neighbours when they were inside their homes.<sup>44</sup> The problem also exists between rooms within the dwelling itself. This external and internal sound transmission is a violation of the traditional principles of *Site* and *Plan Acoustical Privacy* (H3 and H4). Elements such as large single-glazed windows and balconies also increase sound penetration to the outside.

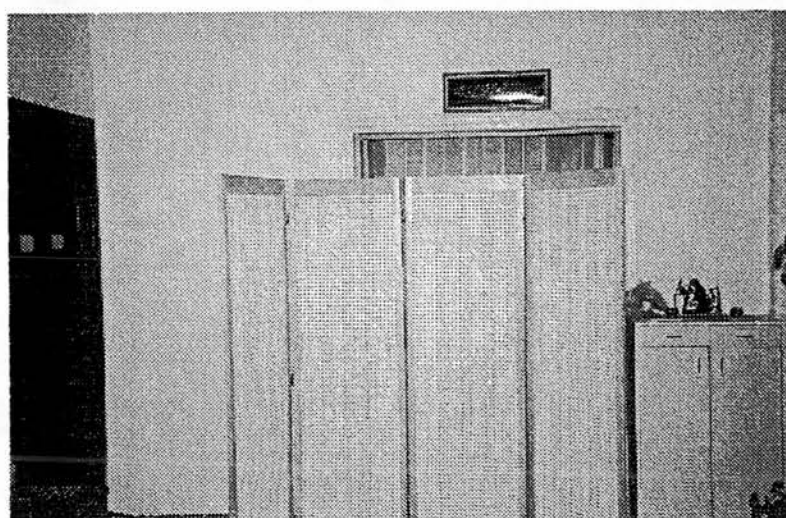
#### **7.2.3 Expensive Elements (a1)**

As a result of social change due to modernisation, the house has become a means through which people demonstrate their status and "modernity". This is more evident in





Extra doors



Movable partitions

Fig. 7.24 Solutions adopted by inhabitants to prevent visual access from visitors' spaces.

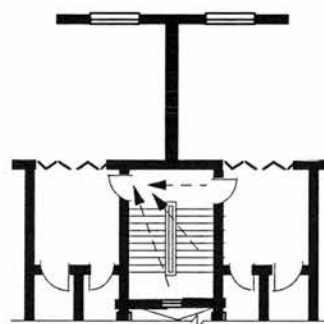
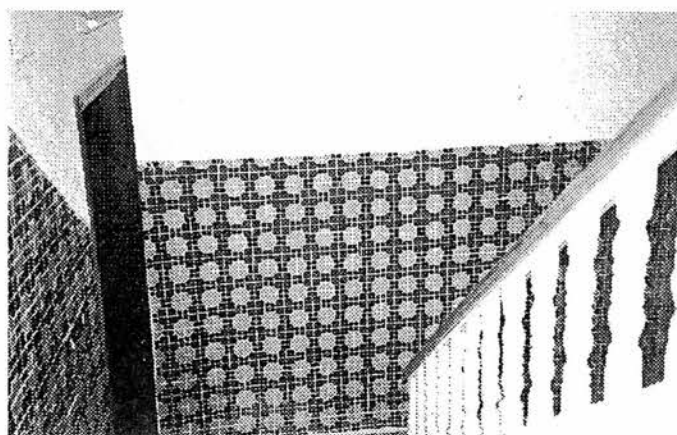


Fig. 7.25 The inside of the apartment is within the vision of stair and hallway users once the main entrance of the apartment is opened. Also placing entrances in front of each other allows face-to-face contact between unrelated female and male tenants.

the villa type which is socially regarded as a sign of prestige. Indeed, Alnowaiser states in his study that in modern villa settlements, people compete to advertise themselves and their materialistic accomplishments.<sup>45</sup> This situation is also applied to apartment buildings but to a lesser degree. Such excessive spending on dwelling extravagances has recently become a concern to the relevant authorities. In this respect, the Engineering Committee of Jeddah's Commercial and Industrial Chamber in its 1989 meeting recommended taking strong measures to educate owners in the necessity of wise spending on housing.<sup>46</sup> There is no doubt that this frivolous spending on self-advertising violates many Islamic principles such as *Humility* (I2), *Balanced Wealth Consumption* (I3) and *Humility in the House* (H13).

The following sections discuss housing elements in which inhabitants sometimes over-stretch themselves financially.

#### **7.2.3.1 Exotic Forms and Finishing Materials on Main Facades (a2)**

The architecture of the main facade of most modern dwellings in Jeddah is a mixture of different styles. The reason for architectural emphasis on facades is the public concern for outlook. For most people, the appearance of their dwellings should express progress and personal sophistication, wealth, and importance. In his study of modern apartments and villas in Medina and Dammam, Al-Saati quotes respondents as stating that most of them believe that their dwelling environment was determined by status.<sup>47</sup> Thus, inhabitants particularly in Jeddah, where the average individual income is much higher than that of the above mentioned cities, demonstrate their status in lavishly decorated elevations unnecessary either for structural requirements or for the spatial arrangement of the dwelling (fig. 7.26). The result is an architecturally or aesthetically confusing facade which is sometimes dramatised by forms and elements thought to be Islamic or traditional. These elements which take the form of concrete arches or wooden screens affixed to the parapets of balconies and roofs as well as recesses, are without function and no more than mere decoration.



The architectural carnival of the front facade also exhibits the use of expensive materials, mainly marble. According to Durani's survey, 78% of householders revealed that the external finishing of a top quality building was perceived to be necessarily marble.<sup>48</sup> The phenomenon of applying marble to almost all front facades provoked the newspaper Okaz to conduct a study aimed at finding out if marble on facades was an essential necessity or just an extravagance. Okaz, with the help of experts such as architects, found that most people used marble because, as they thought, it gave beauty to the dwelling. A few of those interviewed replied that they used it because of its resistance to climatic conditions and low maintenance cost. Yet the most important finding was that marble applied to a typical modern villa or apartment building costs 80% of the total cost of the main facade construction and material.<sup>49</sup>

The amount spent on the front facade is increased by people's preference for imported materials. According to Durani, 64% preferred reinforced concrete to local materials such as clay or coral bricks.<sup>50</sup>

The cost of the front facade of a villa or apartment building reaches its peak when the building is located on a main street. On this subject, Jamel Akbar says,

During the 1970's in Jeddah, the elevation of buildings on main streets had to satisfy and be approved by the mayor himself who was an architect. Buildings located in minor streets had to be approved by municipal officials who in turn had to satisfy the mayor's taste. In some cases, elevations were so lavish that costs rose by as much as 20%. Furthermore, during building, the owner could not make any changes from what was granted in the building permit. This rule discouraged builders from improving on their designs. Indeed, owners often saw errors when they saw the building on site in three dimensions, but they could not longer made changes.<sup>51</sup>

### **7.2.3.2 Highly Decorated Exterior Wall and Gate (a3)**

In order to enhance the sophisticated appearance of the villa, inhabitants pay undue attention to the design treatment of the front wall and its gate. The wall, 2.5-3.5 m high, is highly decorated in various ways with brick and concrete (fig. 7.26). In his research on the satisfaction of residents with the design of their houses in Riyadh, Farooq Mofti says that the cost of building this wall may in some cases exceed 15-20% of the total

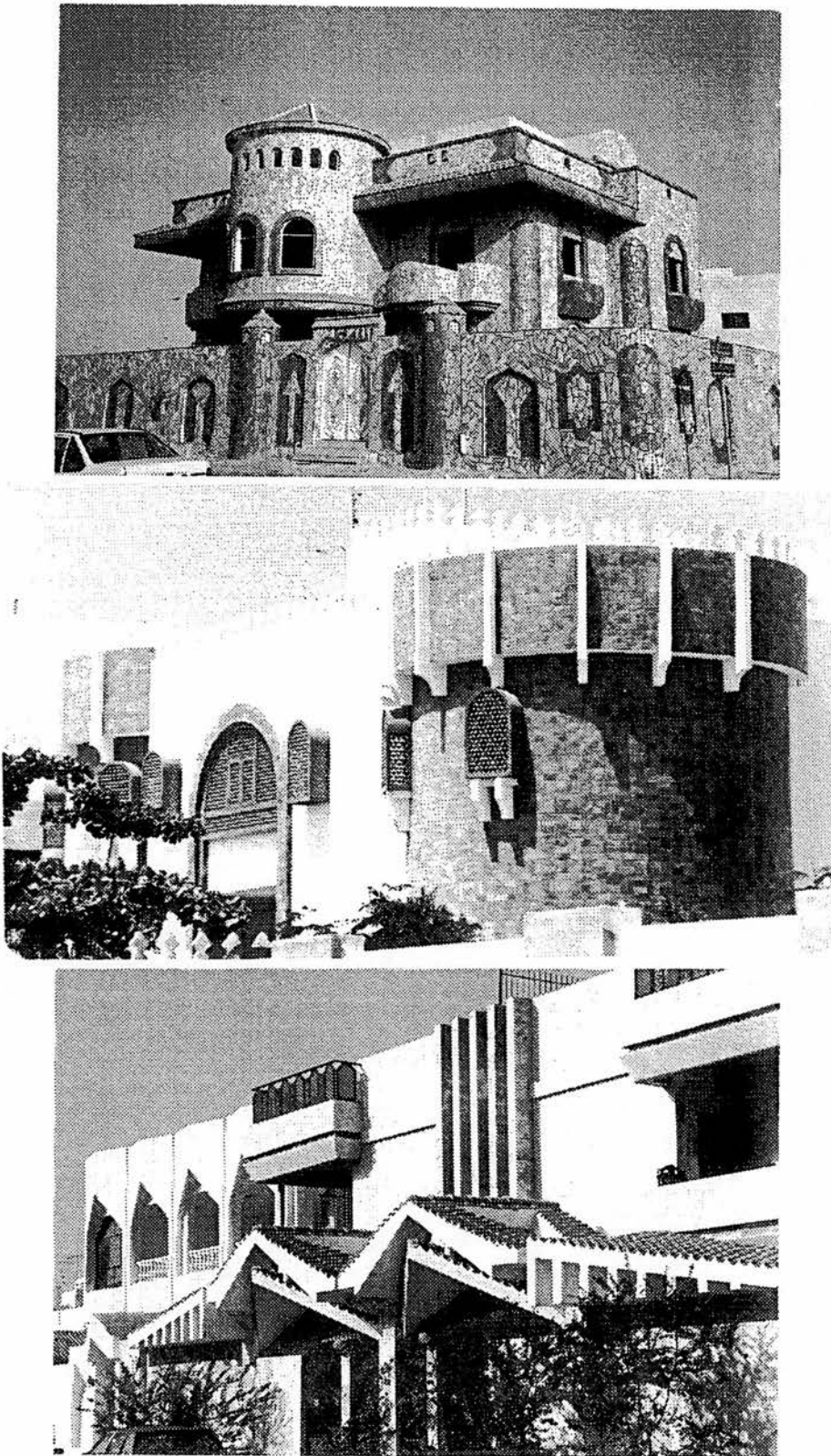


Fig. 7.26 Examples of sophisticated forms and expensive finishing materials applied to the front facade, wall and gate of villas. These villas are supposed to be a middle-income housing as they have been funded by the REDF. Such a contradiction does not reveal any notion but the intention of self-advocating through the appearance of house.

construction cost of the facade.<sup>52</sup> This cost covers the large entrance gate which is also decorated with alien shapes.

There is no doubt that the self-advocating purpose and the high cost of the front wall and its gate violate the traditional Islamic principles of *Humility* (I2), *Balanced Wealth Consumption* (I3), and *Humility outside the House* (H15).

### **7.2.3.3 Large and Rarely Used Indoor Spaces (a4)**

Both villa and apartment buildings include well decorated and furnished rooms which are rarely used. These are the reception and dining rooms. The survey carried out by Hatic Kilical on contemporary villas of Riyadh states that 68% of female responders use the reception room 2-4 times a month for tea or coffee parties, each lasting for about 2-3 hours. Likewise, 60% of male responders use this room 2-4 times a month for male parties each also lasting 2-4 hours.<sup>53</sup> By simple calculation, the total average period the reception room of villa is used is 18 hours a month. The same occasional use is applied to the dining room which is also specified and furnished for receiving guests. Although these separate rooms are the least used in the house and kept locked most of the time, they are necessary for social status. Therefore, they violate the traditional principles of *Humility* (I2), *Humility inside the House* (H14), and *Balanced Wealth Consumption* (I3).

The under-use of these rooms reflects the reduction in social relationships among people and a declining motivation to exchange visits. The elimination of these rooms could be said to aggravate the deterioration in social visiting or communication. However, these are arguably important, but it is not necessary to assign almost a complete floor for this purpose, as is the case in many villas.

## 7.2.4 Functionless Spaces and Elements (a5)

### 7.2.4.1 Setbacks and their Landscape Elements (a6)

The setbacks of villa and apartment buildings do not serve any practical purpose and are therefore a waste of wealth as they do not meet the functions for which they were designated (fig. 7.27). Al-Saati's study states that 70% of respondents complained about the uselessness of these setbacks. 47% thought that these spaces were unused at present, on account of their being overlooked by neighbours.<sup>54</sup> The front setbacks of both villas and apartment buildings are designated principally for car parking. But, as mentioned earlier, most residents park in the street thus benefiting from a public property not their own and hindering traffic circulation. This is a violation of the principles *Avoidance of Harming Public and their Property* (L15, H5) and *Avoidance of Benefiting from Public Land for Individual Interests* (L16, H6). In the case of villas, the front gate reduces the advantage of the front setback for parking as it is large, heavy and hard to open. Dwellers have to use a car for movement within a rapidly expanding city. It is more convenient for them to leave their cars in the street instead of opening and closing the gate every time they go out. Some of them even park on side walks, looking for areas of shade and at a convenient walking distance from their houses. Others construct light-weight shelters for their cars in the street despite the fact that this is against municipal rules (fig. 7.28). Likewise, many owners of front setback of apartment buildings tend to raise it 30-40 cm to ensure their ownership of it and distinguish it from the street level. Also, this setback, being entirely exposed to the street, is a source of visual intrusion and traffic noise and air pollution into the ground floor rooms whose windows open onto it.

The other main designated but unfulfilled function of the front setback of villa is as a recreation area. Occupiers always show great concern for benefiting from this space by, for example, the construction of swimming pools often as a mark of prestige.<sup>55</sup> However, because of its large size and shortage of water, the pool is left empty most of

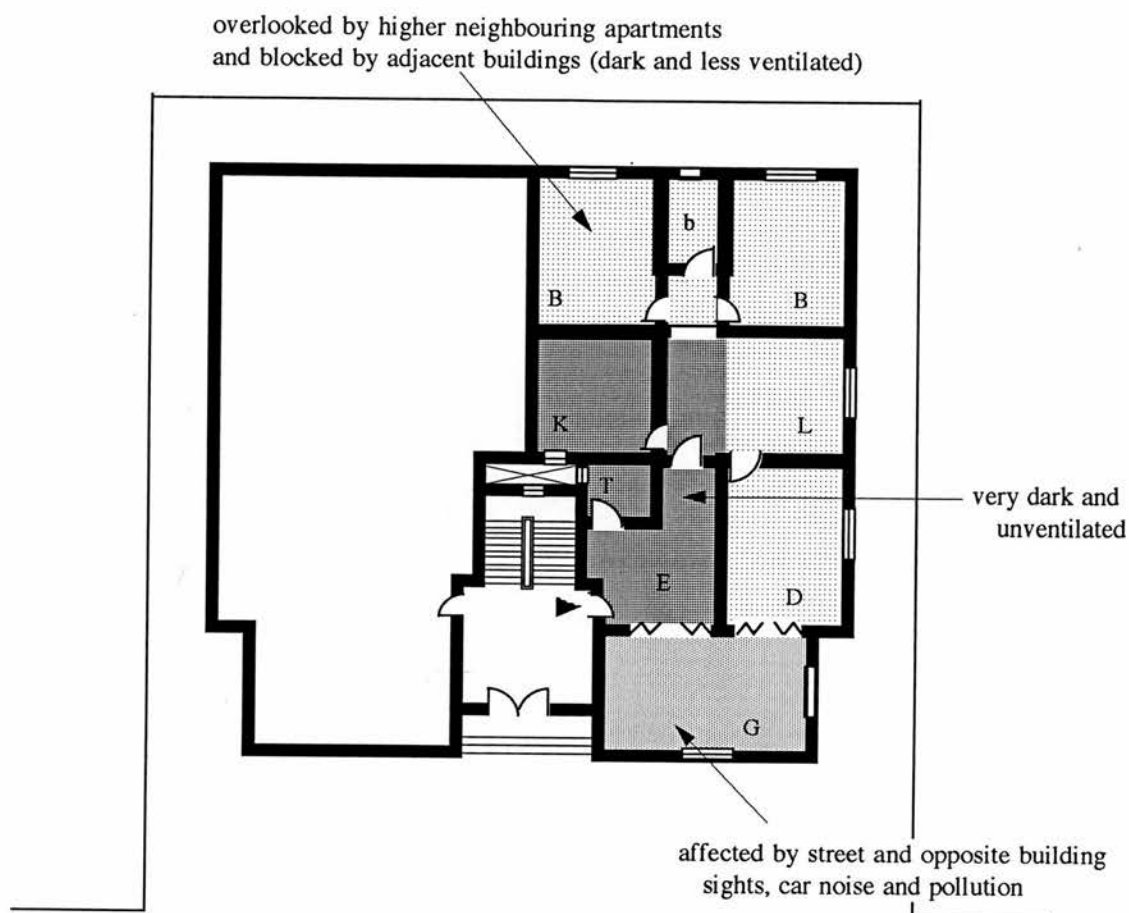


Fig. 7.27 The impact of setbacks on the liveability of interior spaces of a ground floor apartment.

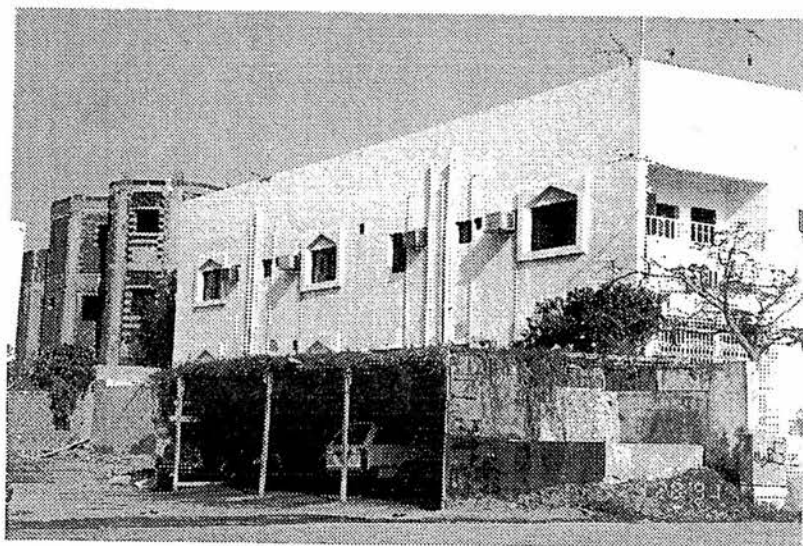


Fig. 7.28 An example of shelter illegally constructed for car parking in a neighbouring or public empty property.

the time, thus becoming a place for the accumulation of sand, dust, leaves and dirt, not to mention the risk of children falling in, forcing owners to cover it with plastic sheeting or even converting it into a planted area which, in addition to similar areas in the setback, consume considerable amounts of water. The privacy problem and the absence of climatic protection also discourage residents from using this setback and enjoying its landscaping which is difficult to maintain due to lack of water. This is a violation of many traditional principles such as *Balanced Wealth Consumption* (I3) and *Humility inside the House* (H14).

The violation of traditional principles is also applied to rear and side setbacks. In both villas and apartment buildings these setbacks do not provide ventilation and light to the dwelling as windows are kept closed and covered by curtains for privacy and climatic reasons. Their narrowness and visual and climatic exposure make these setbacks unsuitable for any activity other than storage.

#### **7.2.4.2 Balconies, Roofs, and Indoor Elements (a7)**

The balcony too is one of the spaces of limited use particularly in apartments. Not only privacy and climatic problems discourage the use of this space for family gathering, but also its narrowness (1-1.2 m) (figs. 7.29-7.30). Also the absence of drains in some balconies make them useless in winter when rain water accumulates in them and enters adjacent rooms. Dripping water, heat and noise from the exposed rear of air conditioning units to these balconies reduce any benefit from them apart from storing and drying clothes.

In the same manner, the roof does not provide any genuine social function. It only houses water tanks, T.V. antennas and the extension of the staircase. Indeed, the roof of an apartment building is not used by residents because the owner of the building usually keeps it locked. In the case of the villa, the intense heat during the day and visual intrusion from surrounding buildings prevent the use of the roof for family activities.



The other wasted space in apartments is made up of lobbies between rooms. The need for privacy has led to the provision of lobbies being provided as access to various designated spaces. Most of them are dead areas (unventilated and dark) as they have blank walls without windows and are sometimes long and monotonous. Moreover, the manwar (central air shaft) of the apartment buildings, being inaccessible and too small (1 x 3 m) to provide enough daylight and ventilation to spaces around it, is also a dead area. Yet, its only advantage is for the installation of water, sewage, electricity, phone conduits and cables through it. It is therefore usually wet, dark and prone to insect infestation (fig. 7.31).

It could be said that the staircase of both villas and apartment buildings in its present form and location is also a wasted space. Akbar and Eyuce claim that a staircase is not just a way to get from one floor to another, but an important source of ventilation can be effectively utilised in cooling the main body of the building.<sup>56</sup>

Furthermore, many apartments include functionless doors. For instance, the doors connecting the dining room with the reception and living rooms, are closed or blocked most of the time for either reasons of privacy or furniture arrangement.

Similarly, the function of large windows is reduced because they are covered by heavy dark curtains and are always kept closed to guarantee privacy and to trap the cooled air of the air conditioner. They provide neither ventilation nor light.

#### **7.2.4.3 Specific Rooms with Heavy-to-Move Furniture (a8)**

The spaces of villas and apartments are not used to their maximum capacity since each of them is assigned for a particular activity. This specification is ensured by the type of furniture required for each room. As a result, the dining or reception room is not flexible enough to be used as a sleeping space or vice versa. Also, the immobile nature of furniture increases this inflexibility. One might argue that this specification of room function and furniture would facilitate inhabitants' modern Western lifestyle. However, it was mentioned in Chapter 6 that many Saudis still prefer to sit on the floor



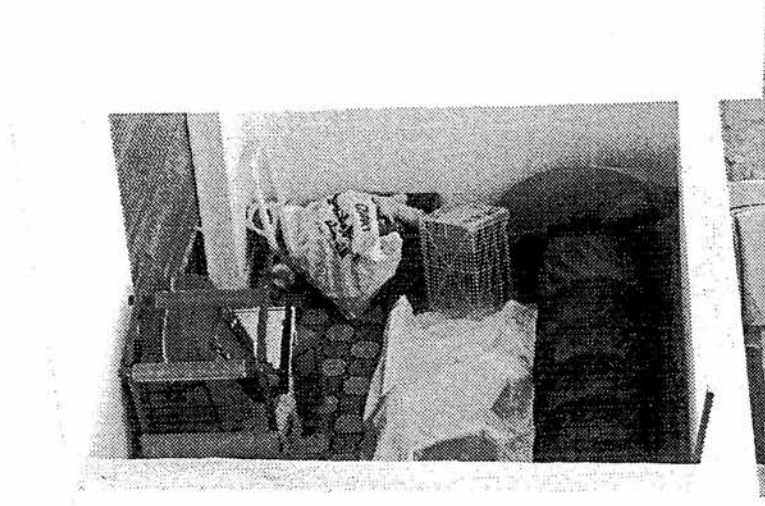


Fig. 7.29 An example of the dominant use of apartment balcony as a storing space.

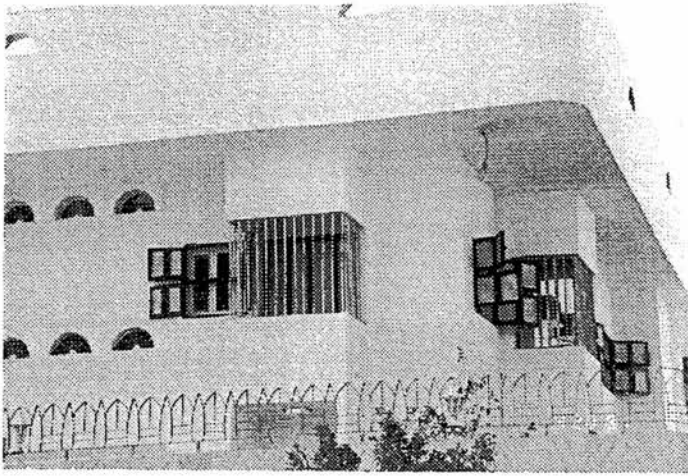


Fig. 7.30 Many balconies of villas are surrounded by steel bars for the security and safety of children.

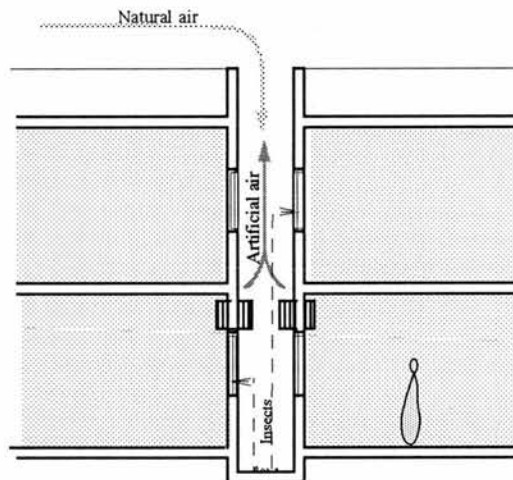


Fig. 7.31 Although the manwar of apartment buildings does not provide any ventilation, the heat and dripping water from some air condition units exposed to it prevent any possibility of fresh air from entering surrounding spaces. This heat also affects other spaces whose windows are opened onto the manwar, where dampness is a source of breeding house insects.

instead of on chairs, and one of the reasons for adopting Western heavy-to-move furniture is prestige. A recent study by Jeddah's Chamber of Commerce promotes the idea that emotional desires such as self-advocating and luxury are usually the major forces for purchasing this type of furniture.<sup>57</sup> There is no doubt that it contributes to or determines the large size of some rooms which are rarely used. For instance, the custom of 2 sets of sofas with 5-8 middle and corner coffee tables necessitates a large reception room of at least 4 x 6 m. This is a violation of the traditional principles of *Humility* (I2), *Humility inside the House* (H14), and *Balanced Wealth Consumption* (I3).

### **7.2.5 Large Number of Separate Rooms (a9)**

According to Islamic teachings, the house is the place where relationships between the members of the inhabiting family should be enhanced. Yet, most of Jeddah's apartments and villas do not support this principle. These dwellings are inhabited by nuclear families and, due to social change, each member has his or her own interest, desire and highly individual activities. The availability of many rooms (6-8), which sometimes exceed in villas the number of inhabitants, provide opportunities for every member to be isolated and sit individually and comfortably in his or her room. It is not difficult to imagine a villa where the father is on the ground floor, the mother in the kitchen and each of the children in a bedroom on the upper floor. Although this scenario might seem normal, when it becomes commonplace it is traditionally unusual and against the principle of *Strong Family Ties* (F1). Also this unnecessary large number of rooms is a violation of the principle *Balanced Wealth Consumption* (I3).

Interaction between family members is also reduced by long corridors and many lobbies and doors which sometimes physically emphasise the segregation of members from one another.

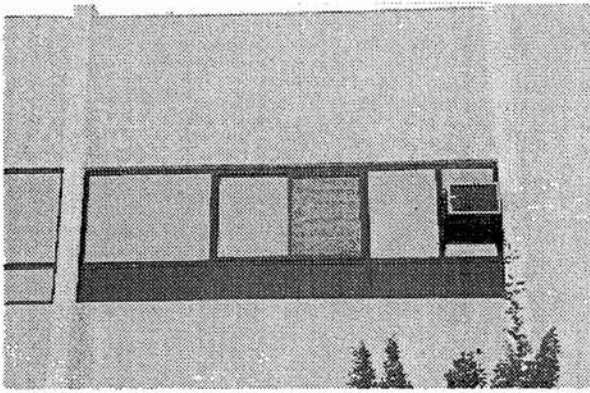
The living room is an illustration of how the specification of rooms for particular functions contributes to family disintegration. In its existence in Jeddah's modern

dwellings, this room which is supposed to be the family core space and the medium for deepening relations between family members, seems to be provided only for T.V. watching. The television set dominates both the furniture arrangement and the activities of this room. There is no doubt that sitting in front of the T.V. limits family activities such as conversation. Okaz reveals that the time spent in watching T.V. is one of the main factors of family break up world-wide.<sup>58</sup> Moreover, the central location of the living room in some apartments as a major circulation area disturbs any family-gathering atmosphere that would be created in it.

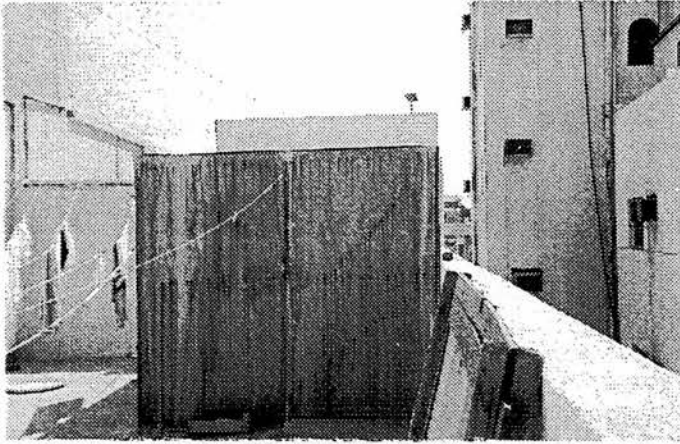
#### **7.2.6 Limited Dwelling Expansion (m1)**

The new apartments and villas are built with no concern for family growth or adaptability of the future increase of the family size. This is mostly related to the municipal regulation which prohibits the expansion of, for example, the villa beyond two floors. Also the dwelling is architecturally designed to accommodate a nuclear family according to this rule.

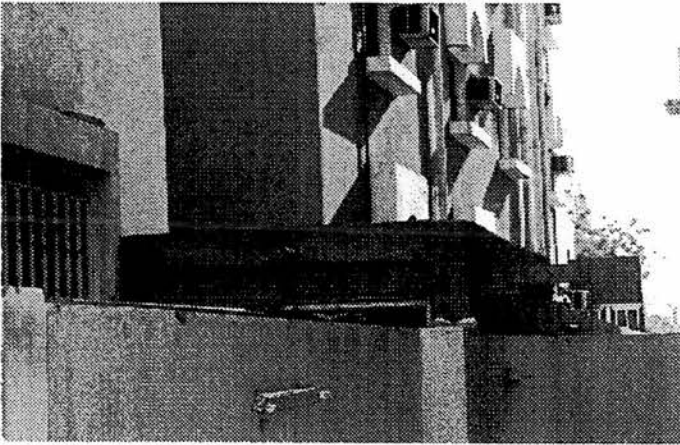
Families living in apartments cannot add an additional room to meet their expansion needs for the simple reason that they do not own the house. Yet, if there is an opportunity for such an addition, it is limited to enclosing an existing balcony. In the same way, villa owners sometimes break the municipal rule by adding a room of light construction on the roof or in one of the setbacks (fig. 7.32). But this addition does not last for long as once it is discovered the municipality requires its removal (fig. 7.33). It was mentioned in the previous chapter that some apartment buildings are occupied by an extended family divided between two or three units. However, Alharbi's case study reveals that such an extended family living in one apartment building does not necessarily mean that it has strong ties. Being self contained, each flat has its own facilities encouraging individuality within the extended family. This is regardless of the attempt of the sub-families to maintain close relationships in traditional occasions such as Ramadhan and 'Eid, when these nuclear families meet together.<sup>59</sup>



Balcony



Roof



Setback

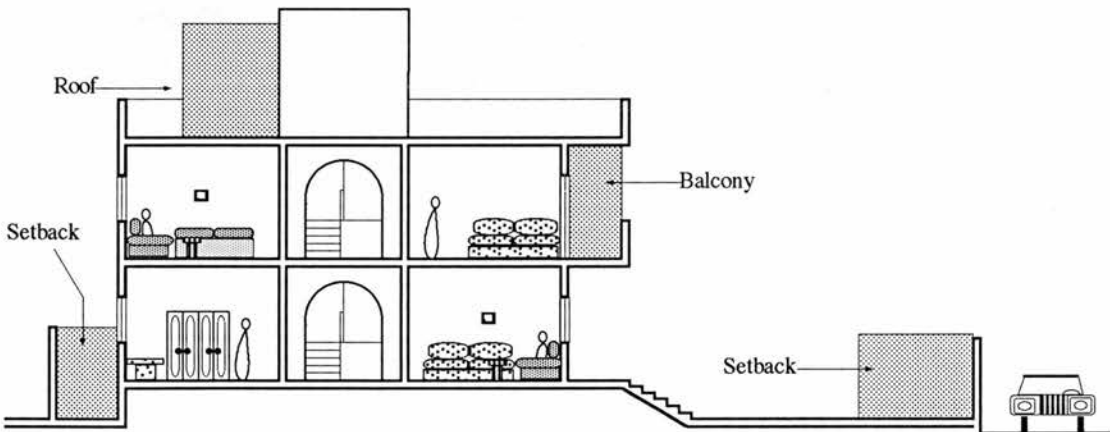
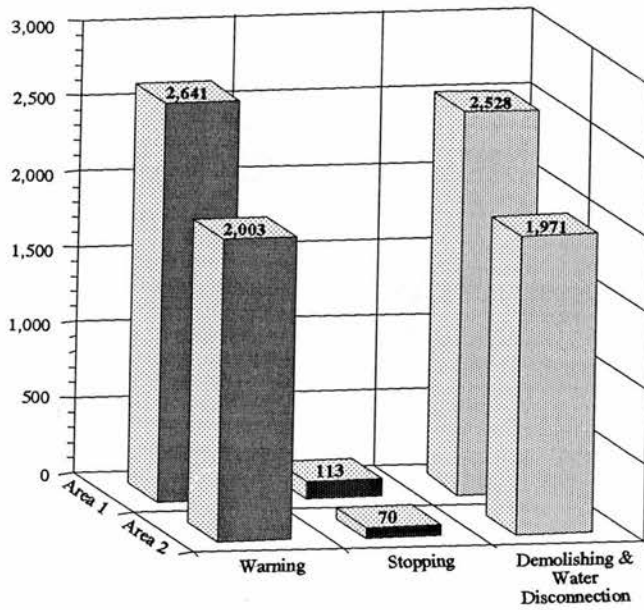
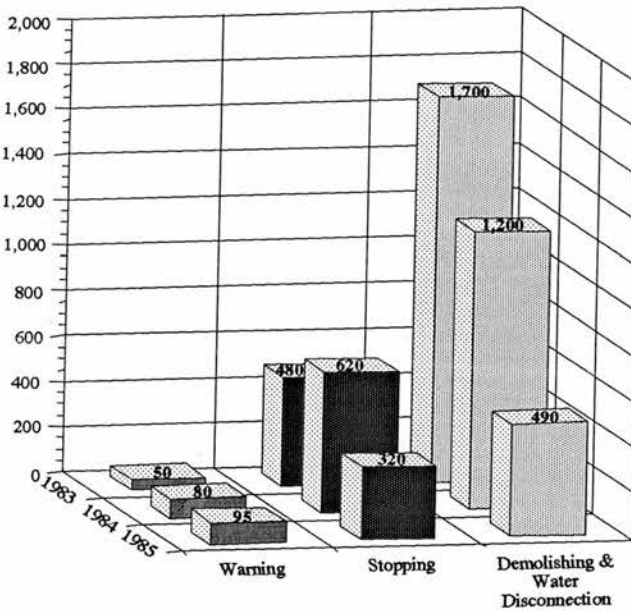
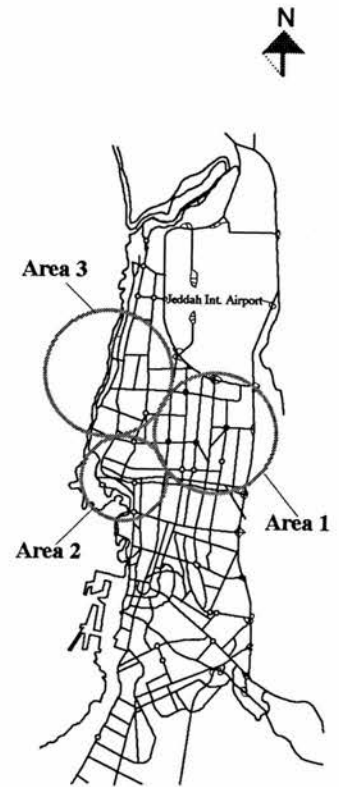


Fig. 7.32 Interiorising the balcony or partially covering the roof or setback is the only alternative inhabitants have to meet their family expansion needs.



Actions between 1988 and mid 1989 in two areas.



Actions in 1983, 1984 and 1985 in Area 3 which is dominated by villa housing.

Fig. 7.33 Municipal actions taken against illegal modifications in apartments and villas in major northern areas.

(Adopted and developed from The Municipality of Jeddah, "Jeddah: The City of the Future", Jeddah, Dar Al-Elm for Publishing and Printing Co., 1989, p. 177, "The Accomplishments of New-Jeddah Sub-Municipality", Jeddah, Dar Al-Asfahani for Printing, 1985, p. 35, and "The Municipality of Jeddah and a Journey of Accomplishments: Annual Report, 1990", p. 206.)

The inability to expand the dwelling in response to the growing size of the family is a violation of the traditional principle that encourages the maintenance of the *Extended Family* (F2) and *Strong Family Ties* (F1).

### **7.2.7 Absence of Micro-Climatic Treatment (m2)**

The design of villas and apartments does not respond to the hot climate of Jeddah. Due to setbacks, the high temperature inside the house is caused by the exposure of all of exterior walls to direct solar radiation and heat. The materials used in the construction of these dwellings contribute to the overheating of the inside. Reinforced concrete is characterised by high conductivity and heat storage which quickly transmits to the interior spaces. The aluminium and glass of the windows are not effective heat insulators and increase the already weak thermal performance of the building which needs large amounts of energy to cool it. Finishing materials applied to facades are also climatically unsuitable, apart from expensive marble applied to front elevations. The white plaster that covers side and back elevations reflects glare and increases brightness, hence maximising the temperature around the building. Moreover, this coating quickly deteriorates in high humidity which affects the structural quality of the building in the long run. It also becomes dirty especially in eastern districts which are close to the desert where the air contains large quantities of sand in suspension.

The lack of durability of the construction material is, to an extent, aggravated by the low quality of construction. Al-Saati states that the life of many new dwellings in Saudi Arabia do not extend beyond an eight-year period after which a considerable number of them show some signs of deterioration<sup>60</sup> (e. g., peeling paint, loose plaster, water leakage, cracks and failing marble tiles.) In a different study by experts in the Gulf states including Saudi Arabia, the life span of a new dwelling is estimated as 20 years and the deterioration of concrete costs 10% of their annual national income. This cost is the highest in the world.<sup>61</sup> According to Sert Jackson's survey, 43.9% of Jeddah's modern



apartment buildings were in only fair physical condition while 13% were in a bad state in 1978.<sup>62</sup>

The reason for the low quality of dwelling construction which maximises the climatic unresponsiveness of materials and their quick deterioration is the poor skills of construction workers. Many inexperienced untrained Saudis have come into the construction business taking advantage of the booming building market during the last decade. With the absence of authoritative supervision, most of them have employed unskilled labour on low wages and with little experience of the local climate. Along with poor skills, the hurried construction of these dwellings necessitated the replacement of many components (e. g., windows, bathroom sanitary, etc.) after a while and before the end of their useful life.

There is no doubt that these climatically ineffective and improper materials, as well as the resulting deterioration, are a waste of capital and a violation of the principle *Balanced Wealth Consumption* (I3).

One might wonder why inhabitants use these construction materials if they are climatically ineffective. In fact, people believe that these materials are strong and "modern", but the foremost reason is to be found in the Real Estate Development Fund (REDF), which only finances dwellings with a structural skeleton of reinforced concrete and aluminium framed glass windows.<sup>63</sup>

The other issue of the climatic unresponsiveness of the design of the new houses is the lack of ventilation. The flow pattern of natural air is sometimes prevented by the mis-orientation of the dwelling's openings toward the prevailing winds (north and west) and by the closing and covering of windows for privacy reasons. In Kilical's survey, 44% of the respondents complained about the lack of ventilation inside their houses.<sup>64</sup> The limitation of proper ventilation in service spaces such as kitchen and bathroom is understood to be a main reason for the breeding of house insects,<sup>65</sup> and the manwar, being too narrow and dark, does not provide enough air for these spaces. It is worth



mentioning here that covering windows by dark curtains for privacy prevents daylight from entering the house. Kilical's study states that 48% of the respondents suffered from the lack of natural light in their dwellings.

The increased indoor heat due to construction materials, lack of ventilation and limited natural light require heavy use of mechanical devices. According to Alharbi's study, 80% of the respondents to his survey have an air-conditioning unit in every room.<sup>66</sup> The use of air-conditioning as a result of the high indoor temperature is essential even when the outdoor climate becomes moderate. This use limits the function of windows for receiving fresh air and light. They must in any case be kept shut for reasons of privacy.

Besides being uneconomical as they consume large amounts of electricity and are becoming expensive, air-conditioning units have an unhealthy impact on occupants. In addition to the associated exclusion of natural air, air conditioning increases viruses and bacteria in the air of the dwelling.<sup>67</sup> They are also a source of chest and eye diseases.<sup>68</sup> Because of their heavy operation and poor wiring and fitting, air-conditioning units are also becoming a source of serious danger to inhabitants. It was estimated that 10 persons have died in 1990 from burning or explosion of air-conditioning units.<sup>69</sup>

From time to time the continuous use of air-conditioning units creates a nuisance to neighbours. These units are a source of water dripping to the outside. It is very common for neighbours living in lower apartments to complain about water dripping from air-conditioning units on upper floors and leaking into their indoor spaces through windows. This is a violation of the principle of *Avoidance of Damaging Neighbouring Housing Rights: Safety* (H9).

As the rear of some air-conditioning units is exposed to balconies, dripping water from them, noise and excessive heat limit the use of these balconies. Also on the large scale, the heat of the air-conditioning units increases the overall outdoor temperature.

## **7.2.8 Other Issues Concerning Ownership and Right Damages (m3)**

### **7.2.8.1 Setbacks (m4)**

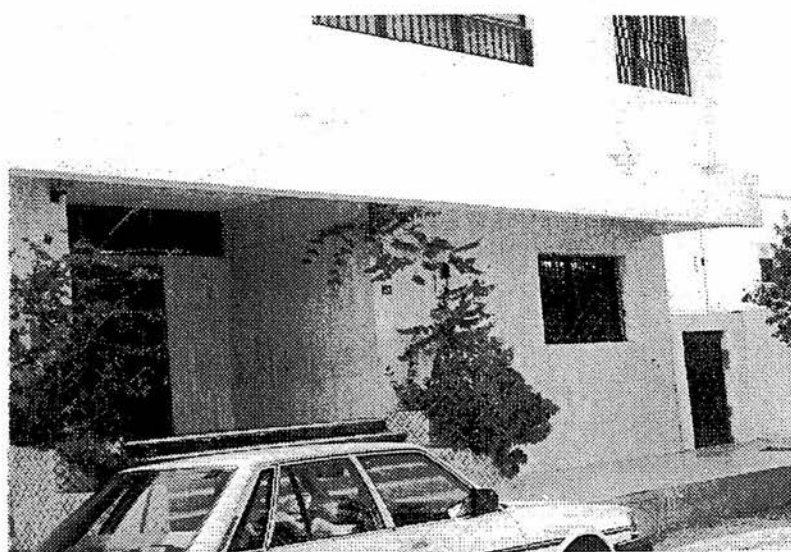
The imposed setbacks, having erased the property threshold, have led to a total confusion as to what is public and what is private. The front setback, in particular with its present shape in apartment buildings, restricts owners and residents as they do not precisely know who owns what. Akbar mentions that people complain about setbacks because they reduce the size of land available for building and the ownership of the property. He points out that some owners believe that they should be compensated by the municipality. On the other hand, the municipality refuses to do that on the grounds that it does not compensate for a property that it did not take and these setbacks are designated for the owners' benefit (e.g., car parking.)<sup>70</sup> Nevertheless, the opinion of the municipality seems invalid. As mentioned earlier, the majority of residents park their cars in the streets instead of in their setbacks.

Because of the confusion about the ownership of the front setback, many owners react in different illegal ways just to ensure ownership. For example, some owners construct rooms in the setback despite frequent discovering and demolition by the municipality. Likewise, many apartment buildings' owners raise the setback 30-40 cm in order to prevent any possibility of car parking and to express their control of this wasted space. Other owners highly landscape it or place lamp posts at its front boundary (figs. 7.34-7.35).

The reactions taken against the lost ownership of setback lead to various consequences and a violation of Islamic principles. Parking in the street, due to the levelling of setback, hinders passers-by along the street and affects traffic circulation. This effect is more noticeable in apartment neighbourhoods where high density of population exists and in streets of 16 m or less. It is a violation of the principles *Avoidance of Harming Public and their Property* (H5, L15) and *Avoidance of Benefiting from Public Land for Individual Interests* (H6, L16). It happens also that



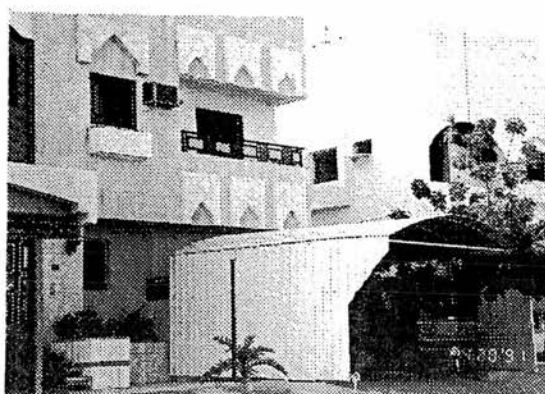
Fig. 7.34 Closing the side setback of the apartment building by a door for ownership control and security purposes especially when the setback is used for storing.



Raising the setback from the street level



Excessive landscaping



Constructing a light shelter for car



Consequences

Fig. 7.35 Various ways of expressing the ownership over the front setback of apartment buildings. Narrowing street and creating car parking shortage are the main consequences of these modifications.

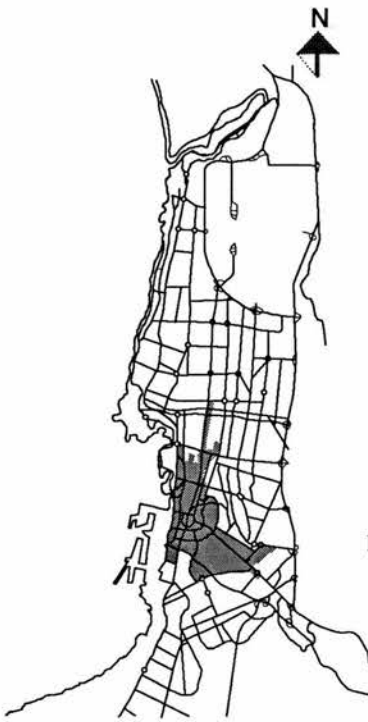
from time to time, when the street becomes congested with parked cars, residents park in front of their neighbours' adjacent space preventing them from their right to this space and blocking their front doors. This may lead to arguments between neighbours and create a tense relationship among them. In this case, the principles *Avoidance of Taking Advantage of Neighbours' Property* (H11), *Avoidance of Damaging Neighbouring Housing Rights: Adjacent Public Space* (H10), and *Making the House a Source of Strong Neighbourliness* (H12) are violated.

#### **7.2.8.2 Septic Tanks (m5)**

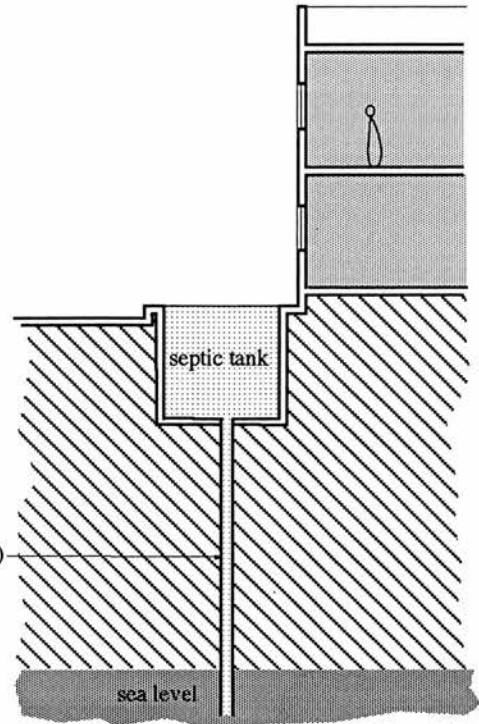
Until 1979 more than 50% of Jeddah's new dwellings were not connected with the city sewage network.<sup>71</sup> As a result, inhabitants have been forced to construct septic tanks in the front setbacks, and many of them have found it annoying and costly to empty the tank frequently. They solved this problem by digging a hole (20-40cm in diameter) in the floor of the tank connecting it with the water table (fig. 7.36). In this case, the tank will remain stable. Such a solution which is becoming popular, is a source of pollution to the marine eco-system. It is a violation of the traditional Islamic principle of *Preservation of the Natural Balance* (U2).

The disposal of waste water sewage by cesspool drainage has considerably raised the underground table of water in northern districts near the sea. Consequently, some of these districts (e. g., Alsalama District) have several times been subjected to flooding. In a report entitled, "Neighbourhoods Breathing under Water", published in Okaz, one of the northern districts and its roads were flooded to the extent that residents would have needed boats to move from their houses. That flood which was severely aggravated by heavy rain later, was associated with an infestation of insects and bad smells as well as electrical shocks.<sup>72</sup> The study by staff of School of Environmental Design at King Abdul Aziz University, Jeddah, on building and planning regulations in Saudi Arabia, strongly recommends the prohibition of septic tanks at least in northern areas.<sup>73</sup>

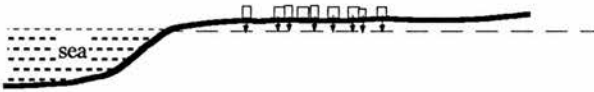




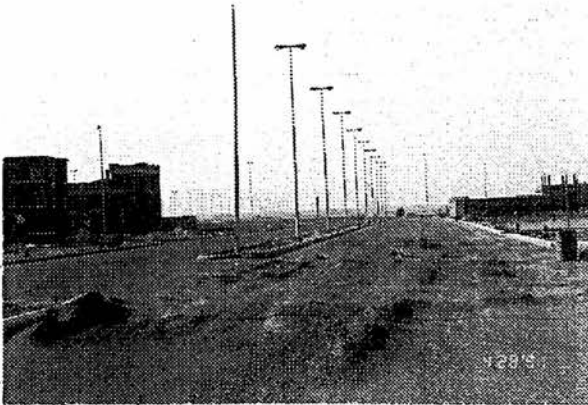
a. The city area connected with sewers.



b. Connecting the septic tank with the sea level.



c. A combination of high water table, shallow impervious bed-rock, proximity to sea, and septic tanks resulting in flooding.



d. Deteriorated physical conditions of streets resulted from the continuous raise in the sea level by septic tanks.

Fig. 7.36 Septic tank and its consequences.

(Section "c" from Abdelmohsen Farahat, et. al., "Evaluation and Development of Building Codes and Land-Use Regulations", Unpublished report prepared for the Saudi Arabian National Centre for Science and Technology, 1985, p. c-17.)

In addition to occasional flooding and health hazards represented in chemical and biological substances penetrated from septic tanks polluting drinking water, the septic tank has a serious impact on the structure of the dwellings. The resultant high water table means an increase in water capillarity. Substances such as salt which is associated with this, affects structural elements such as foundations, walls and sometimes columns.<sup>74</sup> This also has a deteriorating impact on roads. There are many streets in some northern areas with poor surfaces caused by the rise in the water table due to septic tanks and other problems (i. e. inadequate compaction of concrete and poor curing.) The maintenance of these streets consume large sums. For example, the total cost of maintaining deteriorated roads in a northern district (80 km<sup>2</sup>) was SR. 1,646,406 in 1990.<sup>75</sup> This is a violation of the principle *Balanced Wealth Consumption* (I3).

Some owners hire large lorries for emptying their septic tanks. But drivers of these vehicles empty the sewage water in public gardens and other planted areas in the city. This dumping of sewage water in public areas was encouraged by the municipality, although later prohibited, as sewage was thought to be good for the fertilisation and irrigation of plants. The process of vacuuming a septic tank by a lorry lasts at least an hour. During this period, the street, especially if it is narrow (i. e. 12-16 m) and with cars parked on both sides, is almost blocked. This hinders traffic and is inconvenient to neighbours as the foul odours remain for a considerable time. It is a violation of many principles such as *Avoidance of Harming Public and their Property* (L15, H5), *Avoidance of Benefiting from Public Land for Individual Interests* (L16, H6) and *Avoidance of Damaging Neighbouring Housing Rights* (H7).

### 7.3 SUMMARY AND CONCLUSION

From the previous analysis of the design and planning characteristics of modern apartments and villas, it appears that they include many factors that violate or lead to the violation of the traditional social and physical principles of Islam.



On the urban scale, several violations of principles have resulted from foreign master plans and building regulations that have shaped the urban layout and the form of the modern housing environment. The form is compactless and without social setting because it features long wide streets, large open spaces and an absence of spatial hierarchy. Each of these characteristics violates various principles. Violation is also caused by the unjust socio-urban zoning on which the urban layout has been organised, and by the inaccessibility to basic facilities such as mosques, shops, and schools.

Other factors cause violations at the neighbourhood and house scales. They are represented in the visually and acoustically intruded external and internal spaces. Expensive elements and functionless under-used spaces that feature new villas and apartments are against Islamic principles. Traditionally unacceptable damage to the inhabitants themselves, neighbours, public and the environment are caused by the assignment of rooms for a particular use, inflexible expansion of dwellings, ignorance of climatic conditions, setbacks, and septic tanks.

By the end of this chapter, the second part of the study has been completed. This part has discussed the variables and consequences of the modernisation of Jeddah which have led to the dominance of new apartments and villas. It has also explored the urban and architectural characteristics of these dwellings and how they have violated or caused violations to Islamic principles.

The next and final part intends to provide an operational tool that would assist in evaluating a housing environment to find out if this environment embodies any violation factor. It begins with a chapter where both the violation factors and violated principles are combined in matrices in an attempt to evaluate the degree of violation and the level of essentiality of principles. Representing the tool, the matrices are examined on two specific case studies in a later chapter to see if they are sufficient to be used as an evaluation tool.

## CHAPTER 8

## AN EVALUATION OF THE DEGREE OF VIOLATION OF TRADITIONAL ISLAMIC PRINCIPLES IN THE DESIGN OF JEDDAH'S NEW HOUSING

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As a first step towards establishing a critical tool for examining both existing and proposed housing environments based on the previous analysis of traditional Islamic principles and contemporary violation factors, this chapter presents an evaluation of the degree of violation of these principles in Jeddah's modern housing. The chapter is divided into five sections. The first explains the technique used in codifying the various principles and factors. The degrees of obligation and violation are summarised in tables and matrices in the second section. The third section analyses this evaluation in order to rank the violated principles and violation factors. A fourth section presents an assessment of the level of responsibility of the parties responsible for violations. The chapter ends with a brief summary and conclusions.

### 8.1 CODING AND TABULATION TECHNIQUE FOR PRINCIPLES AND FACTORS

Tables 8.1, 8.2 and 8.3 list the traditional social principles, physical principles and violation factors respectively. In these tables, each element, be it principle or factor, is coded. The aims behind the coding system and the tables themselves are as follows:

Simple, Useful and Understandable Codes. The technique used to achieve this aim is reflected in a hierarchic codification using letters and numbers. Principles are coded with capital letters and factors with lower-case letters. For example, in Table 8.1 each set of social principles is labelled with a code starting with the initial letter of the relevant social scale. Thus, the social scale starts with "S", neighbourhood with "N", family with

"F" and individual with "I". The codes of the physical principles use "U" for urban scale, "L" for local or neighbourhood, and "H" for house.

The codes of factors are designated by lower-case letters, each of which abbreviates the aspect or scale where violation occurs. In this respect, the codes begin with "p" representing factors relevant to planning, "i" to visual and acoustical intrusion, "a" to ambitions or desires of owners or designers, and "m" to miscellaneous.

Self-Explanatory Matrices and Tables. This coding technique using initial letters makes the tables and matrices of this and the following chapters clearly understandable. It is much easier than one using a complex numerical coding with a large number of digits. Thus, as long as a letter such as "S" or "p" is understood, the reader can easily recognise the meaning of, for example, S1/p2.

Easy Reference between Coded Elements and Textual Discussion. Although the proposed tables and matrices are self-explanatory, Tables 8.1-8.3, which list principles and factors and their codes, are repeated in A3 fold-out pages in the appendix as key tables. When reviewing any matrix or table in this or the next chapter, the reader should unfold and refer continuously to the key tables where information about the coded elements are arranged in the outer A4 half. For greater links between Chapters 2 and 3 where principles are discussed, Chapter 7 where factors are explained, and tables and matrices, each key table includes a column entitled "Section". This column lists the numbers of the sections or sub-sections where principles and factors are discussed in depth. So when the reader needs more information about a coded element (a principle or factor), he or she could use this column to specify the number of the section or sub-section from where more details could be obtained.

According to the coding technique, the following explains the nature and contents of Tables 8.1, 8.2, and 8.3.

**Table 8.1** The Traditional Principles of the Islamic Social Framework: This table consists of three columns: principle, social scale and code. In the first column, social principles are listed according to their social scales (society, neighbourhood, etc.), which appear in the second column. In other words, the principles which are concerned with the society scale are grouped together, followed by the principles concerned with neighbourhood, family and individual scales respectively. The third column shows the codes corresponding to the principles.

**Table 8.2** The Traditional Principles of the Islamic Physical Framework: Similar to the previous table, this is divided into three columns. The first lists the physical principles according to their scales in descending order from large to small physical scales. The principles of the urban scale are grouped together, followed by those of the neighbourhood and house scales. The second and third columns show the physical scales and codes referring to each principle respectively. Some principles such as *Enhancement of the Application of Shari'ah* are repeated when necessary since their application is not limited to one scale. But the repeated principle is given a different code to relate to its physical scale. For instance, the principle *Enhancement of the Application of Shari'ah* which is coded "U3" in the urban scale, is labelled "L1" in the local or neighbourhood scale.

**Table 8.3** Factors Responsible for the Violation of the Traditional Principles of the Islamic Social and Physical Frameworks: This table lists in order of scale from 'urban' to 'house' the violation factors which physically feature Jeddah's modern housing. The codes of these factors appear in the second column of the table.

Table 8.1 The Traditional Principles of the Islamic Social Framework.

Principle	Social Scale	Code
Strong Social Interaction	Society	S1
Social Justice		S2
Strong Neighbourly Relationships	Neighbourhood	N1
Preservation of a Neighbour's Rights		N2
Strong Family Ties	Family	F1
Extended Family		F2
Strong and Kindly Relationships with Others	Individual	I1
Humility		I2
Balanced Wealth Consumption		I3

Table 8.2 The Traditional Principles of the Islamic Physical Framework.

Principle	Physical Scale	Code
Utilization of Natural Resources	Urban	U1
Preservation of the Natural Balance		U2
Enhancement of the Application of <u>Shari'ah</u>		U3
Reflection of the Concept of <u>'Ummah</u>		U4
Prevention of Harming Public Rights		U5
Involvement of the Official Civil Authority		U6
Involvement of <u>'Ulama</u> (Religious Scholars)		U7
Involvement of Society		U8
Integration of Different Socio-Economic Groups		U9
Close or Attached Dwellings		U10
Streets of Functional Width		U11
Equal and Proportional Distribution of Mosques		U12
Equal and Proportional Distribution of Educational Facilities		U13
Far Location of Industries		U14
Enhancement of the Application of <u>Shari'ah</u>	Neighbourhood	L1
Reflection of the Concept of <u>'Ummah</u>		L2
Prevention of Harming Public Rights		L3
Involvement of Society		L4
Integration of Different Socio-Economic Groups		L5
Commercial Necessities Accessible to Inhabitants		L6
Commercial Necessities Close to Mosque		L7
Consideration of Housing Privacy when Locating Commercial Activities		L8
Close or Attached Dwellings		L9



Table 8.2 (cont.)

Principle	Physical Scale	Code
Streets of Functional Width	Neighbourhood (cont.)	L10
Outdoor Spatial Hierarchy		L11
Equal and Proportional Distribution of Mosques		L12
Mosques Accessible by Walking		L13
Equal and Proportional Distribution of Educational Facilities		L14
Avoidance of Harming Public and their Property		L15
Avoidance of Benefiting from Public Land for Individual Interest		L16
Site Visual Privacy	House	H1
Plan Visual Privacy		H2
Site Acoustical Privacy		H3
Plan Acoustical Privacy		H4
Avoidance of Harming Public and their Property		H5
Avoidance of Benefiting from Public Land for Individual Interest		H6
Avoidance of Damaging Neighbouring Housing Rights		H7
Natural Light and Air		H8
Safety and Quietness		H9
Adjacent Public Space		H10
Avoidance of Taking Advantage from Neighbours' Property		H11
Making the House a Source of Strong Neighbourliness		H12
Humility in the House: Avoidance of Self-Advocating		H13
Inside the House		H14
Outside the House		H15

Table 8.3 Factors Responsible for the Violation of the Traditional Principles of the Islamic Social and Physical Frameworks.

Factor	Code
Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts	p1
Long and Wide Grid-Patterned Streets	p2
Large Open Spaces and Setbacks	p3
Absence of Hierarchic Traffic Density	p4
Large Urban Blocks	p5
Absence of Macro-Climatic Treatment	p6
Residential Typology and Zoning Based on Socio-Economic Levels	p7
Disproportional Distribution of Mosques	p8
Irrelevant Locational Relationship between Mosques and Shops	p9
Disproportional Distribution of Shopping Necessities	p10
Shops in Residential Buildings	p11
Disproportional Distribution of Schools	p12
Visually Intruded Spaces	i1
External	i2
Setback	i3
Balcony	i4
Windows	i5
Rooftop and Height Variation	i6
Internal	i7
Spaces Visually Intruded by Guests	i8
Spaces Visually Intruded by Neighbours	i9
Spaces Visually Intruded by Inhabitants: Visually Exposed Circulation between Bedrooms and Bathrooms	i10
Acoustically Intruded Spaces	i11

Table 8.3 (cont.)

<b>Factor</b>	<b>Code</b>
Expensive Elements	a1
Exotic Forms and Finishing Materials on Main Facade	a2
Highly Decorated Exterior Wall and Gate	a3
Large and Rarely Used Indoor Spaces	a4
Functionless Spaces and Elements	a5
Setbacks and their Landscape Elements	a6
Balconies, Roofs, and Indoor Elements	a7
Specific Rooms with Heavy-to-Move Furniture	a8
Large Number of Separate Rooms	a9
Limited Dwelling Expansion	m1
Absence of Micro-Climatic Treatment	m2
Other Issues Concerning Ownership and Right Damages	m3
Setbacks	m4
Septic Tanks	m5

## 8.2 AN EVALUATION OF THE DEGREE OF VIOLATIONS OF PRINCIPLES

From the discussion of the traditional social and physical principles of Islam in Chapters 2 and 3, the principles are divided here into three categories:

Full Obligation Principles. Principles such as *Strong Social Interaction* (S1), *Enhancement of the Application of Shari'ah* (U3, L1), *Humility* (I2), etc., are regarded by shari'ah as fully binding on Muslims as found in the Qur'anic verses and/or prophetic hadiths. In addition, the obligation status of these principles is clear in other verses and/or hadiths, which declare the prohibition and prescribe the punishment for the violation of these principles.

Strongly Recommended Principles. Also from the discussion in Chapters 2 and 3, there are principles such as *Mosques Accessible by Walking* (L13), *Extended Family* (F2), *Plan Acoustical Privacy* (H4), etc., which are of a lesser obligatory degree but are still strongly recommended principles. The proof of these less flexible principles is Prophetic hadiths and cases that occurred during Islamic history, particularly in the period of the Four Righteous Caliphs. The violation of any of these principles under certain conditions or necessities is not prohibited; but deliberately doing so is prohibited especially if this would cause offence to others or lead to violation of full obligatory principle(s). For instance, the principle *Mosque Accessible by Walking* (L13) is strongly recommended. Yet, ignoring this principle by making mosques difficult to reach not only violates this principle but would lead to the violation of the full obligatory principle *Strong Social Interaction* (S1).

Recommended Principles. These principles such as *Equal and Proportional Distribution of Educational Facilities* (L14) and *Close or Attached Dwellings* (L9) are desirable to consider for many social reasons explained in Chapter 3. And ignoring or flouting them is not prohibited as long as no serious hardship is inflicted upon others or no violation of full obligatory principles is caused. The source of this category of

Key to Matrices 8.1-8.4:

- Full Obligatory Principle  
Category: not flexible  
Source of proof: Qur'an and/or sunnah  
Judgement: ignoring or doing the opposite of it is prohibited and a punishable act.
- ◐ Strongly Recommended Principle  
Category: limited flexibility  
Source of proof: sunnah and cases occurred during Islamic history, particularly in the period of the Four Righteous Caliphs  
Judgement: ignoring it under certain conditions is not prohibited, but deliberately doing the opposite is prohibited. It must be implemented if there is a possibility of application.
- Recommended Principle  
Category: flexible  
Source of proof: cases occurred during Islamic history, and in which ijtihad and other shari'ah sources are used  
Judgement: ignoring it or doing the opposite is not prohibited, but applying it is desirable (for many reasons).
- High Violation
- ▒ Moderate Violation
- ▤ Limited Violation
- No Violation

Matrix 8.1 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the Urban Scale Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	<p>S1/p2</p> <p>S1/p6</p> <p>S1/p3</p> <p>S2/p7</p> <p>U3/p1</p> <p>U7/p1</p> <p>U9/p7</p> <p>U11/p2</p> <p>L7/p8</p> <p>I1/p2</p> <p>I1/p6</p> <p>I1/p3</p> <p>I3/p3</p> <p>I3/p2</p>	<p>U4/p3</p> <p>U4/p6</p> <p>U11/p4</p>	
▣	<p>S1/p5</p> <p>S1/p4</p> <p>I1/p5</p> <p>I1/p4</p> <p>I3/p6</p> <p>U2/m5</p>	<p>U5/p4</p> <p>L6/p10</p>	<p>U4/p7</p> <p>U13/p12</p> <p>U10/p3</p>
◻	<p>S1/p8</p> <p>U12/p8</p>	<p>I3/p4</p>	
□	<p>U1</p> <p>U14</p>		

Matrix 8.2 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the Neighbourhood Scale Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	S1/p6 S1/p2 S1/p3 L1/p1 N1/i2 N2/i2 L7/p8 L10/p2 I1/p3 I1/i2 I3/p2	I3/p3 L2/p6 L2/p3 L11/p4	
■	S1/p5 S1/p4 I1/p4 I1/p5 I3/p6 L8/p11 L15/m4 L15/m5 H7/m5 H11/m4 H12/i2	L3/m3 L6/p10 L13/p8 L13/p6 H12/m4	H10/m4
□	I3/m5 L16/m4		L9/p3
□			



Matrix 8.3 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the House Scale (Apartment) Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	L1/p1 I3/a6 I3/m2 I3/a7 H1/i3 H1/i4 H1/i5 H2/i8 H2/i10 H9/m2	F2/m1 H4/i11 H3/i11	
■	F1/a9 I2/a2 I3/a4 I3/a2 I3/a8 I3/a9 H14/a6 H14/a8 H15/a2	H8/i3	
□	I2/a4 H1/i6 H2/i9 H14/a4		
□			

Matrix 8.4 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the House Scale (Villa) Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	L1/p1 I2/a2 I2/a4 I2/a3 I3/a3 I3/a2 I3/a6 I3/a8 I3/a7 I3/a9 I3/m2 H1/i3 H1/i4 H1/i5 H14/a4 H14/a6 H14/a8 F1/a9 H15/a2 H15/a3	F2/m1 H8/i3	
▣	I3/i3 H9/m2		
▤	H2/i8 H1/i6 H2/i9	H3/i11 H4/i11	
□			

principles is in cases which occurred during Islamic history in some of which ijtihad and other shari'ah methods were used by Muslim jurists.

The level of violation caused by a factor varies from one principle to another and from a physical scale to another. For example, it appears from the discussion in Chapter 7 that the factor *Large Open Spaces and Setbacks* (p3) causes more violation to the principle *Reflection of the Concept of 'Ummah* (L2) in the neighbourhood scale than it causes to the principle *Close or Attached Dwellings* (L9). Regardless of this variation, the category of high violation factors includes factors that are dominant features of Jeddah's modern environment such as *Wide Long Grid-Patterned Streets* (p2), *Residential Typology Based on Socio-Economic Levels* (p7), *Setbacks* (i3), etc.

Mainly based on the previously explained categorisation of principles, Matrices 8.1, 8.2, 8.3 and 8.4 combine the degree of obligation of principles (horizontally) and the degree of violation of principles by factors (vertically). Each matrix relates the degree of obligation of principles to the degree of their violation in a particular physical scale (urban, neighbourhood, or house). The combination of principles and factors is presented by joining the codes of both social or physical principles (e. g., S1, S2, U1, U2, etc.) of Tables 8.1 and 8.2 and violation factors (e. g., p1, p2, etc.) of Table 8.3. For example, the code of the principle *Strong Social Interaction* violated by the factor *Wide Long Grid-Patterned Streets* is S1/p2.

### 8.3 RANK OF VIOLATED PRINCIPLES AND VIOLATION FACTORS

In this section an attempt to rank the violated principles and violation factors is introduced using a graphical or chart analysis. This analysis gives a visual indication of the variety of the dominance of violated principles and violation factors. So the analysis is a means of providing a convenient presentation based on the information provided by the matrices. It should not, however, be considered as statistically precise.

As the analysis is just an introductory attempt, it concentrates on ranking only the full obligatory principles which are violated in the urban scale, and high violation factors also in the same scale.

### 8.3.1 Analysis of Full Obligatory Principles Violated in the Urban Scale

The ranking of these principles is initially based on an equation derived from Matrix 8.1. The equation is then transformed into a bar in the chart (fig. 8.1) for each principle. The variables of this equation are:

a. Points given to each principle according to the level of its violation by a factor, fall in to four categories as follows:

High Violation = 15 points

Moderate Violation = 10 points

Limited Violation = 5 points

No Violation = 0 points

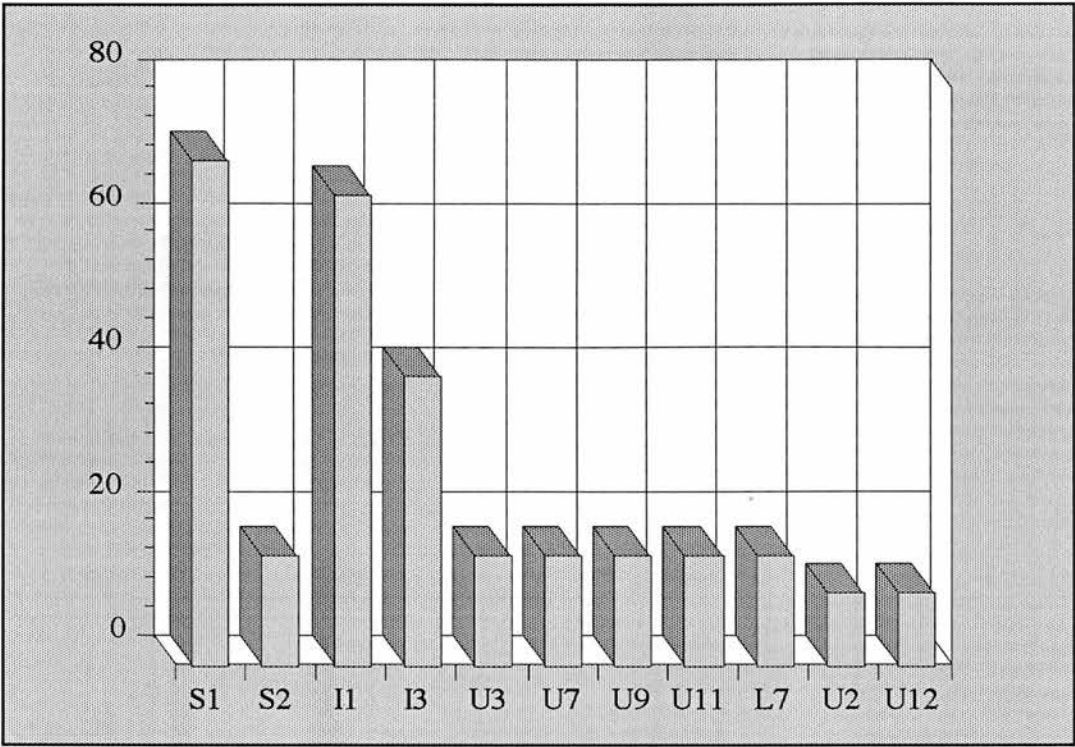
b. Number of times a principle is violated by a factor.

The equation gives the total number of points as following:

$$\text{points of violation level} \times \text{number of violations}$$

For example, the points that are given to the principle *Strong Social Interaction* (S1) violated by 4 factors of high violation and 1 of moderate violation work out as follows:

15 points (high violation factor)  $\times$  4 (number of violations) + 10 points (moderate violation factor)  $\times$  1 (number of violations) = 70 points.



Rank	Principle	Code
1	Strong Social Interaction	S1
2	Strong and Kind Relationships with Others	I1
3	Balanced Wealth Consumption	I3
4	Enhancement of the Application of <u>Shari'ah</u>	U3
	Involvement of ' <u>Ulamma</u> (Religious Scholars)	U7
	Streets of Functional Width	U11
	Commercial Necessities Close to Mosque	L7
	Social Justice	S2
	Integration of Different Socio-Economic Groups	U9
5	Preservation of the Natural Balance	U2
	Equal and Proportional Distribution of Mosques	U12

Fig. 8.1 Rank of full obligatory principles violated in the urban scale.

**8.3.1.1 Results of Analysis**

The table in Figure 8.1 ranks the violated principles according to the points of the chart. As mentioned earlier, this analysis is merely indicative. The results in the ranking in the table that follows the chart do not entirely match the reality. For example, the principle *Integration of Different Socio-Economic Groups* (U9) is low in rank. But this principle is violated by the factor *Residential Typology and Zoning Based on Socio-Income Level* (p7), which is dominant to the extent that it shapes the contemporary dwelling environment of Jeddah. As a result, the ranking underestimates the dominance of these violation factors as well as the degree of violation of principles. The ranking indeed places at the top the principles violated by factors which are greater in number and points than the ones which violate principles lower in rank.

**8.3.2 Analysis of High Violation Factors in the Urban Scale**

The formula used in this analysis is similar to the one previously followed. The only difference is in one of the equation variables. The equation used here is:

$$\text{points of a principle violated by a factor} \times \text{number of violations}$$

These points are of three categories:

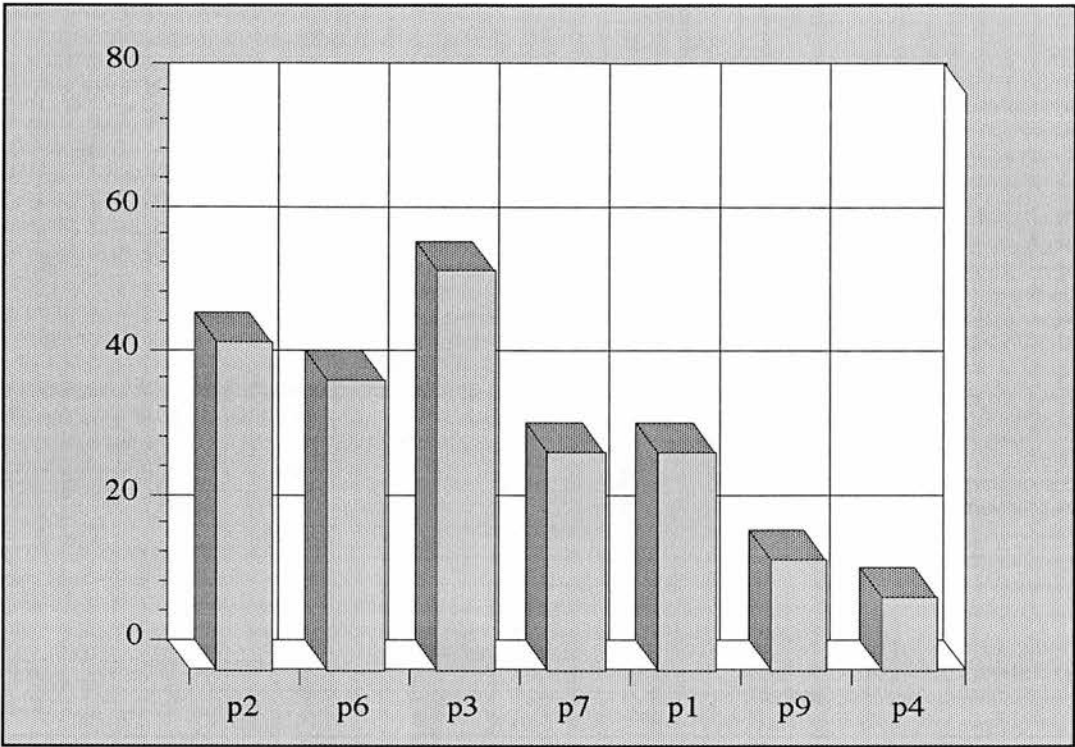
$$\text{Full Obligatory Principle} = 15 \text{ points}$$

$$\text{Strongly Recommended Principle} = 10 \text{ points}$$

$$\text{Recommended Principle} = 5 \text{ points}$$

As an example, the value given to *Wide long Grid-Patterned Streets* (p6) in the high violation factors of the urban scale is:

$$15 \text{ points (full obligatory principle)} \times 2 \text{ (number of violations)} + 10 \text{ points (strongly Recommended principle)} \times 1 \text{ (number of violations)} = 40 \text{ points.}$$



Rank	Principle	Code
1	Large Open spaces and Setbacks	p3
2	Wide Long Grid-Patterned Streets	p2
3	Absence of Macro-Climatic Treatment	p6
4	Residential Typology Based on Socio-Economic Levels	p7
	Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts	p1
5	Irrelevant Locational Relationship between Mosques and Shops	p9
6	Absence of Hierarchic Traffic Density	p4

Fig. 8.2 Rank of high violation factors in the urban scale.



### 8.3.2.1 Results of Analysis

Comparing to the previous results of the analysis of principles, the results of analysing the violation factors seem more reliable. Included in Figure 8.2, the ranking lists the dominant violation factors at the top. Only one factor; *Absence of Hierarchic Traffic Density* (p4), which was expected to be dominant, is listed low in the rank. As explained before, this problem arises from the high number of points some violation factors receive, regardless of their lesser dominance in the dwelling environment.





























































As appears in the results, the mathematical formula used to achieve the ranking is insufficient due to minor errors in them. However, the results can be improved by analysing each element independently, whether it is a principle or a factor. For example, if a principle, such as *Integration of Different Socio-Economic Groups* (U9), is low in the rank, it should be treated differently by placing it in a higher level. This should be made on the condition that this principle is known to be violated by a dominant factor such as *Residential Typology and Zoning based on Socio-Income Level* (p7).

## 8.4 LEVEL OF RESPONSIBILITY OF PARTIES RESPONSIBLE FOR VIOLATION FACTORS








































In Chapters 5, 6, and 7 it was explained that the contemporary dwelling environment of Jeddah and of the violation factors which feature in this environment are a result of decisions and/or desires of three parties: inhabitants or owners, design practitioners and regulatory authority. Matrix 8.5 specifies these parties in relation to the violation factors they are responsible for and the degree of this responsibility.

The column "factor" lists the physical elements that violate or lead to a violation of traditional principles. The presence of these factors is determined by relevant decision or activity of the three parties. Firstly, the regulatory authority (the Municipality of Jeddah), in its housing design regulations, greatly contributes to the creation of some

Matrix 8.5 The Level of Responsibility of the Parties' Responsible for Violations.

Factor				Codification
Master Plans and Buildings Regulations Originated in and Imported from Non-Traditional Contexts				p1
Long and Wide Grid-Patterned Streets				p2
Large Open Spaces and Setbacks				p3
Absence of Hierarchic Traffic Density				p4
Large Urban Blocks				p5
Absence of Macro-Climatic Treatment				p6
Residential Typology and Zoning Based on Socio-Economic Levels				p7
Disproportional Distribution of Mosques				p8
Irrelevant Locational Relationship between Mosques and Shops				p9
Disproportional Distribution of Shopping Necessities				p10
Shops in Residential Buildings				p11
Disproportional Distribution of Schools				p12
Visually Intruded External Spaces (Setbacks)				i3
Visually Intruded External Spaces (Balconies)				i4
Visually Intruded External Spaces (Windows)				i5
Visually Intruded External Spaces (Roof-tops and Height Variation)				i6
Spaces Visually Intruded by Guests				i8
Spaces Visually Intruded by Neighbours				i9
Spaces Visually Intruded by Inhabitants: Visually Exposed Circulation between Bedrooms and Bathrooms				i10

Matrix 8.5 (cont.)

Factor				Codification
Acoustically Intruded Spaces				i11
Exotic Forms and Finishing Materials on Main Facade				a2
Highly Decorated Exterior Wall and Gate				a3
Large and Rarely Used Indoor Spaces				a4
Setbacks and their Landscape Elements				a6
Functionless Spaces and Elements (Balconies, Roofs and Indoor Elements)				a7
Specific Rooms with Heavy-to-Move Furniture				a8
Large Number of Separate Rooms				a9
Limited Dwelling Expansion				m1
Absence of Micro-Climatic Treatment				m2
Issues Concerning Ownership and Right Damages (Setbacks)				m4
Issues Concerning Ownership and Right Damages (Septic Tanks)				m5

Key

-  Inhabitants/Owners
-  Design Practitioners
-  Regulatory Authority
-  High Responsibility
-  Moderate Responsibility
-  Limited Responsibility
-  No Responsibility

factors. Secondly, practitioners or designers strongly influence other factors through their design solutions. Thirdly, inhabitants or owners are also responsible for some violation factors. Their responsibility is more likely to be related to the engendered norms and behaviours due to modernisation.

Under the column "party", each party has a different level of responsibility in or control over the existence of a factor. For example, the factor *Limited Dwelling Expansion* (m1) is shared between authority and practitioners. But practitioners have more control over this factor as they could design an apartment with the possibility for future expansion. In the same way, inhabitants or owners and practitioners share the responsibility for the violation factor *Large Number of Separate Rooms* (a9). Yet, this factor is controlled to a greater extent by owners, who can direct practitioners to design a housing unit with a specific number of rooms according to their actual spatial needs. Also there are factors where parties share a similar level of responsibility or control.

## 8.5 SUMMARY AND CONCLUSIONS

In this chapter the degree of violation of traditional Islamic principles by the design and planning factors of Jeddah's new housing has been evaluated and presented in four matrices where the codes of both principles and factors are combined according to the level of obligation of principle and the degree of violation by factor. The codes have been established in three tables aiming to provide easy-to-read, self-explanatory tables and matrices. As part of the design of the coding system and in order to link explicitly the tables and matrices with earlier chapters, the code tables will be repeated in the appendix as key tables. Using these tables, the reader can refer to earlier chapters when reviewing a table or a matrix in this or the next chapter if more information is needed. In the evaluation, the principles are distinguished from each other as full obligatory, strongly recommended and recommended. Likewise, violation factors are divided into

four categories: high, moderate, limited, and no-violation. Towards the end, the chapter includes an attempt to rank principles and factors, but the technique applied in the ranking did not correspond fully with reality. The dominance of some violation factors in the built environment is underestimated. And analysis of the level of responsibility of the parties responsible for violation factors has also been presented.

In the next chapter, Matrices 8.1-8.4 are applied to two specific case studies to test their validity as an operational tool for evaluating existing and proposed dwelling environments.

## CHAPTER 9

## A TEST OF THE VALIDITY OF THE MATRICES AS A TOOL FOR EVALUATING HOUSING ENVIRONMENTS: TWO CASE STUDIES (AL-SAHAIFA AND AL-BARAKAH)

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In this chapter, the matrices of Chapter 8 are applied to two case studies and consideration is given to their use as an operational tool for the evaluation of existing or proposed housing environments for middle-income Saudis. These matrices were achieved from an analysis of Islamic principles and of the factors violating them based on the general conditions of Jeddah's modern housing. But their validity needs to be tested against real housing environments at different scales. If the matrices are sufficiently correct and comprehensive, then, with appropriate adaptation, they could be developed as a practical tool.

The chapter is divided into six sections. The first describes the method used in assessing two actual examples. In the second section, the two case studies are presented to illustrate the use of the matrices and as a preliminary test of their validity. The third section discusses the outcome of the test. The fourth and the fifth sections discuss what would be necessary to developing the matrices as a practical tool. The last section summarises the entire chapter.

The first of the two case studies is Al-Sahaifa, a district in Jeddah. It was originally a primitive Bedouin settlement. As a result of the first oil boom in the early fifties, Al-Sahaifa was gradually developed, particularly in the sixties, after the fortified wall of the traditional city was demolished. It is considered a transitional urban zone as it is located between the old city and modern Jeddah.

The second case study is Al-Barakah City, a private housing project. It is located at the edge of the urban growth limit of Mecca. The project is developed and financed by



"Dallah", one of the largest Saudi investment and development companies in the Islamic World. According to the developer, Al-Barakah, which is still under construction, symbolises the architectural and urban development of the Holy City.

Testing the elements (principles and factors) of the matrices on the case studies will indicate whether they are valid and sufficiently comprehensive. The results of the test also provide guidelines for the development of the matrices into a practical tool.

## 9.1 METHODOLOGY OF THE TEST

Matrices 9.1-9.4 are the main matrices produced in Chapter 8. They are presented again here for ease of reference. They list the traditional Islamic principles combined with violation factors. Each matrix relates the degree of obligation of the principles to the degree of their violation. Each also shows the physical scales where design factors violate principles: urban, neighbourhood, and house (apartment and villa) scales.

The four matrices are used to analyse the design at each scale (urban, neighbourhood, or house) in each case study. In each case the evaluation starts with checking the map, representing the urban scale of the tested case, against the principles of Matrix 9.1 to see if any of these principles is violated or not. Then the design of a layout of group of houses representing the neighbourhood scale is checked against Matrix 9.2. This is followed by the evaluation of the architectural design (floor plans and main elevation) of a typical house of that case against Matrix 9.3 if the house is an apartment building or Matrix 9.4 if it is a villa.

The principles listed in each matrix are of two types: social and physical. The social principles are those which the authority of Islamic shari'ah asks Muslims to implement in the society, neighbourhood, family and individual scales. The physical principles are also required by shari'ah to be followed in the physical environmental scales (urban, neighbourhood and house.) Both types of principles are coded using codes starting with capital letters. The codes of the social principles are labelled "S", "N", "F", and "I" for society, neighbourhood, family and individual scales respectively;

likewise, the physical principles, "U" for urban, "L" for local or neighbourhood, and "H" for the house scales. The total number of the social and physical principles relevant to apartment housing environment is 50, and also 50 principles apply to the villa housing environment. These principles are tested one by one for each case study according to the housing type of each case.

Whenever a principle is tested, the related violation factors are also checked to see if the design at the evaluated scale includes any of them. The codes of these factors are distinguished from the principles. They are designated by lower case letters: "p" for factors related to planning, "i" for visual or acoustical intrusion, "a" for ambitions or desires of owners or designers, and "m" for miscellaneous factors.

During the test, the key tables of the fold-out pages in the Appendix must be continuously referred to in order to identify the meanings of the codes.

Key to Matrices 9.1-9.4:

- Full Obligatory Principle  
Category: not flexible  
Source of proof: Qur'an and/or sunnah  
Judgement: ignoring or doing the opposite of it is prohibited and a punishable act.
- Strongly Recommended Principle  
Category: limited flexibility  
Source of proof: sunnah and cases occurred during Islamic history, particularly in the period of the Four Righteous Caliphs  
Judgement: ignoring it under certain conditions is not prohibited, but deliberately doing the opposite is prohibited. It must be implemented if there is a possibility of application.
- Recommended Principle  
Category: flexible  
Source of proof: cases occurred during Islamic history, and in which ijtihad and other shari'ah sources are used  
Judgement: ignoring it or doing the opposite is not prohibited, but applying it is desirable (for many reasons).
- High Violation
- Moderate Violation
- Limited Violation
- No Violation

Matrix 9.1 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the Urban Scale Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	S1/p2 S1/p6 S1/p3 S2/p7 U3/p1 U7/p1 U9/p7 U11/p2 L7/p8 I1/p2 I1/p6 I1/p3 I3/p3 I3/p2	U4/p3 U4/p6 U11/p4	
▣	S1/p5 S1/p4 I1/p5 I1/p4 I3/p6 U2/m5	U5/p4 L6/p10	U4/p7 U13/p12 U10/p3
▤	S1/p8 U12/p8	I3/p4	
□	U1 U14		

Matrix 9.2 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the Neighbourhood Scale Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	S1/p6 S1/p2 S1/p3 L1/p1 N1/i2 N2/i2 L7/p8 L10/p2 I1/p3 I1/i2 I3/p2	I3/p3 L2/p6 L2/p3 L11/p4	
▣	S1/p5 S1/p4 I1/p4 I1/p5 I3/p6 L8/p11 L15/m4 L15/m5 H7/m5 H11/m4 H12/i2	L3/m3 L6/p10 L13/p8 L13/p6 H12/m4	H10/m4
◻	I3/m5 L16/m4		L9/p3
□			

Matrix 9.3 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the House Scale (Apartment) Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	L1/p1 I3/a6 I3/m2 I3/a7 H1/i3 H1/i4 H1/i5 H2/i8 H2/i10 H9/m2	F2/m1 H4/i11 H3/i11	
▒	F1/a9 I2/a2 I3/a4 I3/a2 I3/a8 I3/a9 H14/a6 H14/a8 H15/a2	H8/i3	
□	I2/a4 H1/i6 H2/i9 H14/a4		
□			

Matrix 9.4 The Degree of Violation of the Traditional Islamic Social and Physical Principles in the House Scale (Villa) Caused by Violation Factors in Response to the Degree of Obligation of the Principles.

Degree of Obligation Degree of Violation	●	●	○
■	L1/p1 I2/a2 I2/a4 I2/a3 I3/a3 I3/a2 I3/a6 I3/a8 I3/a7 I3/a9 I3/m2 H1/i3 H1/i4 H1/i5 H14/a4 H14/a6 H14/a8 F1/a9 H15/a2 H15/a3	F2/m1 H8/i3	
▣	I3/i3 H9/m2		
◻	H2/i8 H1/i6 H2/i9	H3/i11 H4/i11	
□			



## **9.2 THE TEST: CASE STUDIES**

### **9.2.1 Case Study One: Al-Sahaifa District, Jeddah**

Al-Sahaifa district is located between the inner and outer roads of the east side of old Jeddah. It covers an area of 16 hectares and consists of 2-5 story residential buildings which have been gradually extended upward by residents. The increase in the family size of occupants has necessitated this extension. The total number of residents is 2,464, representing a population density of 154 persons/hectare. Such a density makes Al-Sahaifa a highly populated district in comparison to other districts in Jeddah. The residents are low-income Saudi and other Arab families who are mostly traders, salesmen and mechanics.

The total area of the residential and other privately owned lots is 9.44 hectares representing 59% of the whole area of the district. The number of dwellings totals 968 with a density of 61% dwelling units/hectare. Most dwellings were originally row houses and have been expanded into walk-up apartments. New apartment buildings took the place of old houses with the open spaces and block layouts defined by each row of apartments. This makes apartments the predominant housing type in Al-Sahaifa. The lot size of each apartment building varies, but the average is 325 m<sup>2</sup>.<sup>1</sup>

In terms of facilities, almost all of the houses are connected to electricity, water, telephone and sewer networks from the city. The district also benefits from an adequate supply of health services, schools and mosques. The area of these facilities is 0.16 hectares or 1% of the total area of the district. Shopping facilities are also widely available.

Al-Sahaifa is served with a public transportation network connecting it with the rest of the city. Nevertheless, traffic congestion is very high. Al-Gaza is the most crowded street in Al-Sahaifa as most commercial activities and light industry take place along it. As a result, this street features very heavy vehicular and pedestrian movements. This and most of the other streets are relatively narrow. The narrower interior alleys are

unpaved and without side walks. The other urban distinction of the district is the absence of open spaces, courtyards or playgrounds. Furthermore, few parking spaces are available, and car owners park in the streets. The total area of public spaces (i. e. streets and alleys) is 6.4 hectares representing a percentage of 40% of the entire area of Al-Sahaifa.<sup>2</sup>

The neighbourhood scale of Al-Sahaifa is predominantly residential regardless of the commercial and light industrial activities, which are found along some of the major streets of some neighbourhoods. The private lots which are mostly used for housing amount to 59-60% of the total area of a typical neighbourhood. The rest of the area (40-41%) is devoted to public streets, walkways and services. Although it is very hard to distinguish one neighbourhood from another due to the organic integrated form of the district, Yousef Fadan reveals in his description of the physical environment of Jeddah that the area of a typical neighbourhood of Al-Sahaifa is 0.5% of the entire district. He mentions that the number of residential lots in a neighbourhood is 31 lots with a density of 65 lots/hectare. Around 56 dwelling units are constructed on these lots and occupied by 230 individuals with a density of 460 individuals/hectare.<sup>3</sup>

In the house scale, all of the houses are self-funded. This makes the rate of housing ownership in Al-Sahaifa very high. Most of the apartment buildings are inhabited by extended families. Yet, single family occupation predominates since each apartment is inhabited by a nuclear family of 3-5 persons. A typical apartment includes an average of 3 rooms mostly used for multi-purposes. As a common feature of apartment dwellings, roof areas are usually shared between occupants. The construction materials vary between reinforced concrete, masonry, or wood. Some of the dwellings are built by artisans, others by small contractors.<sup>4</sup>

The test of Matrices 9.1-9.3 against Al-Sahaifa's urban, neighbourhood and house scales (Figures 9.1, 9.2, 9.3, and 9.4) now follows:

#### a. Urban Scale vs. Matrix 9.1

The *Strong Social Interaction* (principle S1) does not seem to be violated by the compact urban form of the district. Although this compactness is clearly visible on the map (Figure 9.1), the application to the map of the factors listed in the matrix which usually violate this principle supports this finding. Almost none of the factors, *Long and Wide Grid-Patterned Streets* (p2), *Absence of Macro-Climatic Treatment* (p6), *Large Open Spaces and Setbacks* (p3) and *Large Urban Blocks* (p5), exist. This can also be applied to the factor *Absence of Hierarchic Traffic Density* (p4). The map shows an outdoor spatial hierarchy.

Neither does the principle *Social Justice* (S2) seem to be violated. The factor *Residential Typology and Zoning based on Socio-Economic Levels* (p7) does not feature in the district where dwelling sizes are varied and integrated and occupants are of different levels of low income. However, there is an important fact which detracts from this conclusion: when we relate Al-Sahaifa to the rest of the city, we find that the district is limited to only the low income group. Therefore, this principle (S2) cannot be tested without relating the district to the rest of the city.

Likewise, no definitive result could be achieved by applying the principle *Integration of Different Socio-Economic Groups* (U9) and its violation factor *Residential Typology and Zoning Based on Socio-Economic Levels* (p7) to the map. This difficulty is similar to the one previously faced when testing the principle *Social Justice* (S2). In other words, the district should be related to the rest of the city in order to test the principle (U9).

According to Matrix 9.1, the principles *Enhancement of the Application of Shari'ah* (U3) and *Involvement of 'Ulama (Religious Scholars)* (U7) are violated by *Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (factor p1). Simply looking at the map will not show whether planning was undertaken locally or whether religious scholars were involved in it. Historically, the



Fig. 9.1 The map of the urban scale of Al-Sahaifa, to which Matrix 9.1 is applied.

(Map from Fadan, 1977, p. 33)

district was built in the fifties and sixties before modern planning consultants had set up any master plan for Jeddah. But, the district has been developed with new apartment buildings whose design is based on foreign regulations. Thus, no accurate result could be obtained from testing principles U3 and U7 by visual analysis of the map. City planning principles and building regulations implemented in the district would additionally have to be taken into account to obtain a result.

*Streets of Functional Width* (principle U11) appears not to be violated because *Long and Wide Grid-Patterned Streets* (factor p2) and *Absence of Hierarchic Traffic Densities* (factor p4) do not feature in this district.

The principle *Commercial Necessities Close to Mosques* (L7) also seems not to be violated by *Disproportional Distribution of Mosques* (factor p8). According to Figure 9.2, almost all commercial areas contain mosques.

Also the principle *Strong Relations with Others* (I1) is not violated. The district does not include the factors *Long and Wide Grid-Patterned Streets* (p2), *Absence of Hierarchic Traffic Density* (p4), *Large Urban Blocks* (p5), *Large Open Spaces and Setbacks* (p3), and *Absence of Macro-Climatic Treatment* (p6).

*Balanced Wealth Consumption* (principle I3) appears not to be violated as the district does not feature *Setbacks* (factor a6). Also the district does not feature *Wide Long Grid-Patterned Streets* (p2), *Absence of Macro-Climatic Treatment* (p6), and *Absence of Hierarchic Traffic Density* (p4), which are the factors which would lead to the violation of this principle.

The Principle *Preservation of the Natural Balance* (U2) is not violated by *Septic Tanks* (factor m5). Each dwelling in the district is directly connected to the sewer network of the city. Nonetheless, the district does include some unpaved roads. Exhaust fumes and dust from heavy traffic on these roads together with the sandstorms which occasionally occur in Jeddah cause considerable air pollution and thus this

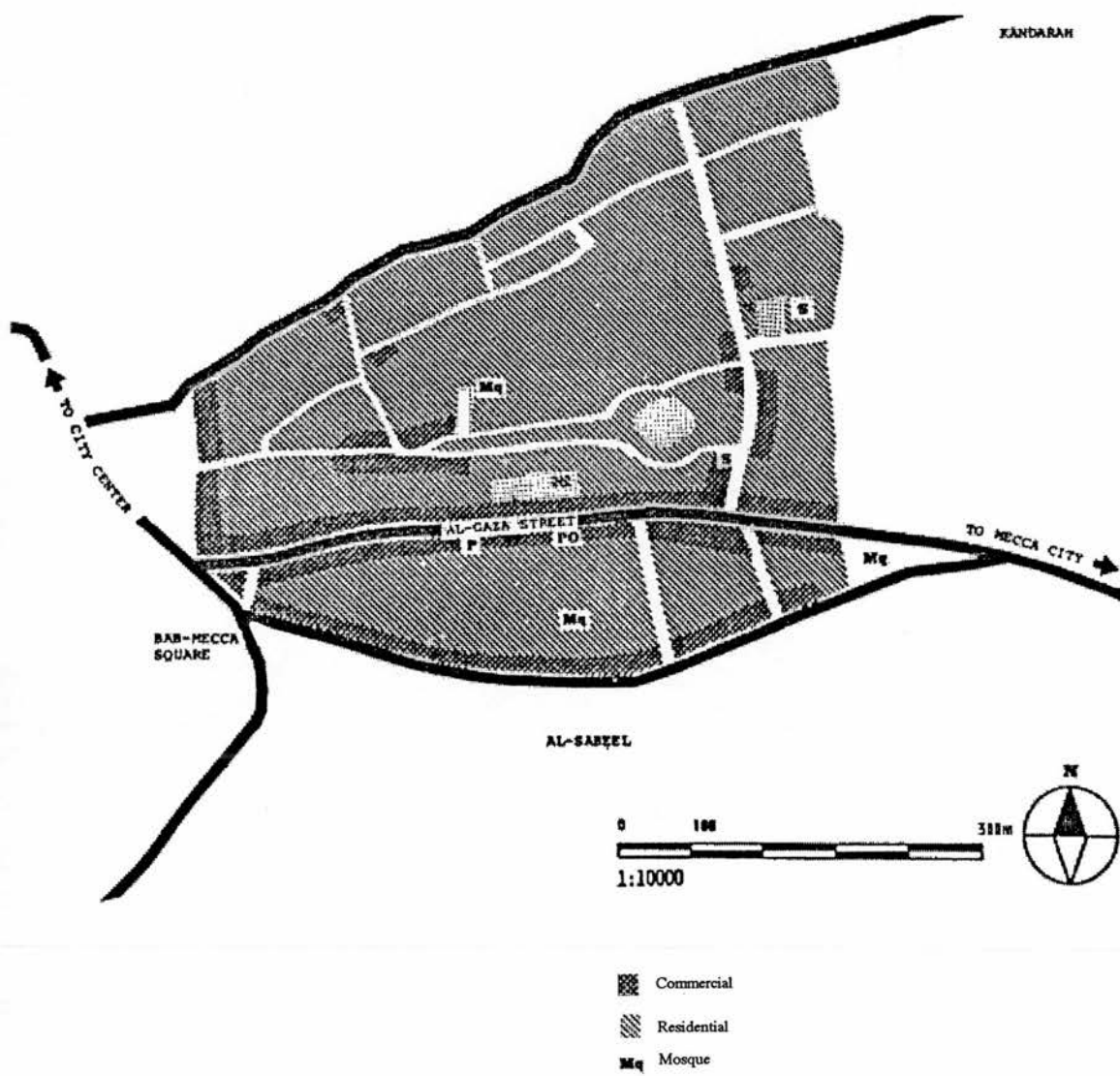


Fig. 9.2 The land use pattern of Al-Sahaifa.

(Map from Fadan, 1977, p. 34)

principle is violated. The "unpaved roads" factor is not listed in Matrix 9.1, which is, as mentioned earlier, based on the general conditions of Jeddah's modern housing.

The principle *Equal and Proportional Distribution of Mosques* (U12) does not appear to be violated because the district includes several mosques mostly accessible to all inhabitants.

*Reflection of the Concept of 'Ummah* (principle U4) is also not violated as the district does not feature *Large Open Spaces and Setbacks* (factor p3) and *Absence of Macro-Climatic Treatment* (factor p6), which are the factors which would contribute to the violation of this principle. Also it seems that this principle is not violated by the factor *Residential Typology and Zoning Based on Socio-Economic Levels* (p7). The variation of dwelling sizes in this district suggests that occupants are of different low income levels. Yet, what has been discussed earlier in regard to the violation of the principle *Social Justice* (S2) by this factor is also applied to the principle U4.

Similarly, the principle *Commercial Necessities Accessible to Inhabitants* (L6) is not violated because the factor *Disproportional Distribution of Shopping Necessities* (p10) does not exist in the district. This is also applied to the principle *Equal and Proportional Distribution of Educational Facilities* (U13) and the violation factor *Disproportional Distribution of Schools* (p12).

The principle *Prevention of Harming Public Rights* (U5) appears not to be violated by the factor *Absence of Hierarchic Traffic Density* (p4). The district features a hierarchy of street sizes. It could be said that the low income of inhabitants would reduce car ownership and presence in front of houses. This in fact prevents any hindrance of pedestrian movement especially in some streets which are very narrow.

The last principle in Matrix 9.1, *Close or Attached Dwellings* (U10) is also not violated as the district is not characterised by *Large Open Spaces and Setbacks* (factor p3).



## **b. Neighbourhood Scale vs. Matrix 9.2**

*Strong Social Interaction* (principle S1) does not appear to be violated in Al-Sahaifa's neighbourhoods, where violation factors such as *Large Urban Blocks* (p5), *Wide Long Grid-Patterned Streets* (p2), *Large Open Spaces and Setbacks* (p3), and *Absence of Hierarchic Traffic* (p4) and *Macro-Climatic Treatment* (p6) do not exist.

The principle *Enhancement of the Application of Shari'ah* (L1), which is according to the matrix violated by *Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (factor p1) cannot be tested. The principle is too general and it is not sufficient only to use the neighbourhood plan in order to discover if this principle is violated or not. Analysing the master plans of and the building regulations implemented in the city would assist in finding out if their origin is non-traditional and thus judge the violation status of the principle.

It appears that the principle *Prevention of Harming Public Rights* (L3) is not to be violated as the neighbourhood does not feature the factors of *Ownership and Right Damages* (m3).

*Strong Neighbourly Relationships and Preservation of a Neighbour's Rights* (principles N1 and N2) do not seem to be violated in the neighbourhood where dwellings do not include *Visually Intruded External and Internal Spaces* (factors i2, i3, i4, i5, i6, i7, and i8). However, such a result cannot be obtained only by looking at the plan of the neighbourhood. It also requires a study of the floor plans of some dwellings in the same neighbourhood. This will tell us if these dwellings include any external spaces (e. g., balconies, setbacks, etc.) and how the privacy of these spaces, if they exist, is maintained.

The principle *Commercial Necessities Close to Mosque* (L7) is not violated because the neighbourhood does not feature *Disproportional Distribution of Mosques* (factor p8). There are several mosques distributed among the neighbourhoods of the district and located on main streets which are major commercial routes.

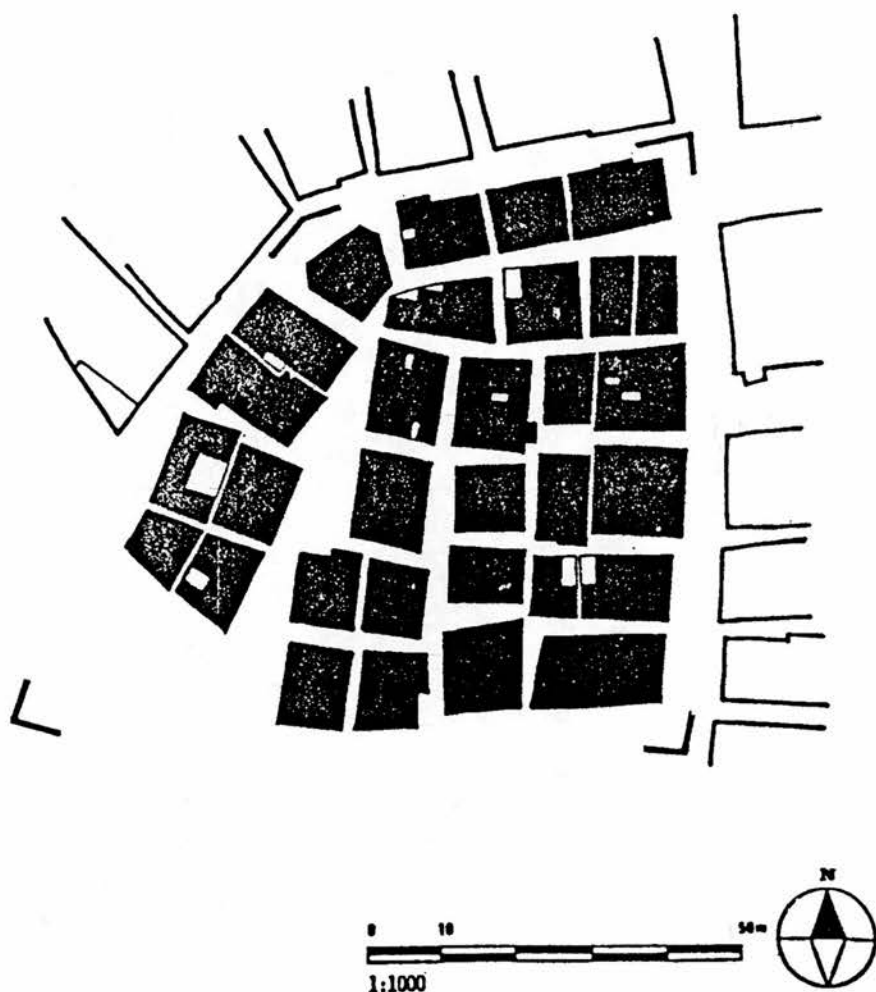


Fig. 9.3 A plan of a typical neighbourhood scale in Al-Sahaifa, to which Matrix 9.2 is applied.

(Plan from Fadan, 1977, p. 39.)

The principle *Streets of Functional Widths* (L10) appears not to be violated by avoiding *Long and Wide Grid-Patterned Streets* (factor p2) in the neighbourhood's layout.

Likewise, *Strong Relations with Others* (principle I1) is not violated due to the absence of *Large Urban Blocks* (factor p5) and *Large Open Spaces and Setbacks* (factor p3). Other factors such as *Absence of Hierarchic Traffic Density* (p4) are also avoided.

It seems that the principle *Balanced Wealth Consumption* (I3) is not to be violated. None of the factors, *Wide Long Grid-Patterned Streets* (p2), *Large Open Spaces and Setbacks* (p3), and *Absence of Macro-Climatic Treatment* (p6) is featured in the neighbourhood level of the district.

According to Matrix 9.2, the principle *Consideration of Housing Privacy when Locating Commercial Activities* (L8) is generally violated by *Shops in Residential Buildings* (factor p11). If we see the design of a typical dwelling (Figure 9.4), we find that the openings (i. e. windows and balconies) are few and screened and some of them are raised. This concludes that the principle is not violated regardless of the shops located in some dwellings.

The principle *Avoidance of Harming the Public and their Properties* (L15) is not violated as the houses of neighbourhood do not include *Septic Tanks* (factor m5) as they are connected with the sewer network. The absence of septic tanks also would prevent any indirect impact on the physical condition of street surfaces which leads to the violation of the principle *Balanced Wealth Consumption* (I3).

Also *Avoidance of Benefiting from Public land for Individual Interests* (principle H7) does not appear to be violated in the neighbourhood where *Septic Tanks* (factor m4) do not exist.

The principle *Reflection of the Concept of 'Ummah* (L2) is also not violated because the factors *Absence of Macro-Climatic Treatment* (p6) and *Large Open Spaces and Setbacks* (p3) are not featured in the neighbourhood.

The principle *Mosques Accessible by Walking* (L13) does not seem to be violated as are the factors *Absence of Macro-Climatic Treatment* (p6) and *Disproportional Distribution of Mosques* (p8) do not feature in the neighbourhood.

Similarly, *Outdoor Spatial Hierarchy* (principle L11) is not violated by *Absence of Hierarchic Traffic Density* (factor p4).

The principle *Commercial Necessities Accessible to Inhabitants* (L6) is not violated in the neighbourhood where the factor *Disproportional Distribution of Shopping Necessities* (p10) is avoided.

The principle *Making the House a Source of Strong Neighbourliness* (H12) is also not violated by the absence of *Setbacks* (factor m4). This absence seems to prevent the violation of the principle *Avoidance of Taking Advantage from Neighbours' Property* (H11), *Avoidance of Benefiting from Public Land for Individual Interest* (L16), and *Avoidance of Harming Public and their Property* (L15).

The last principle in Matrix 9.2, *Close or Attached Dwellings* (L9), is not violated as *Large Open Spaces and Setbacks* (factor p3) do not exist in the neighbourhood.

### **c. House Scale vs. Matrix 9.3**

According to Matrix 9.3, the principle *Enhancement of the Application of Shari'ah* (L1) is commonly violated by *Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (factor p1). Looking at the design of the selected house (Figure 9.4) does not show whether foreign building regulations have been involved in the design of the house. Moreover, the house was built before *Modern Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* were implemented in Jeddah. This might not be sufficient to state

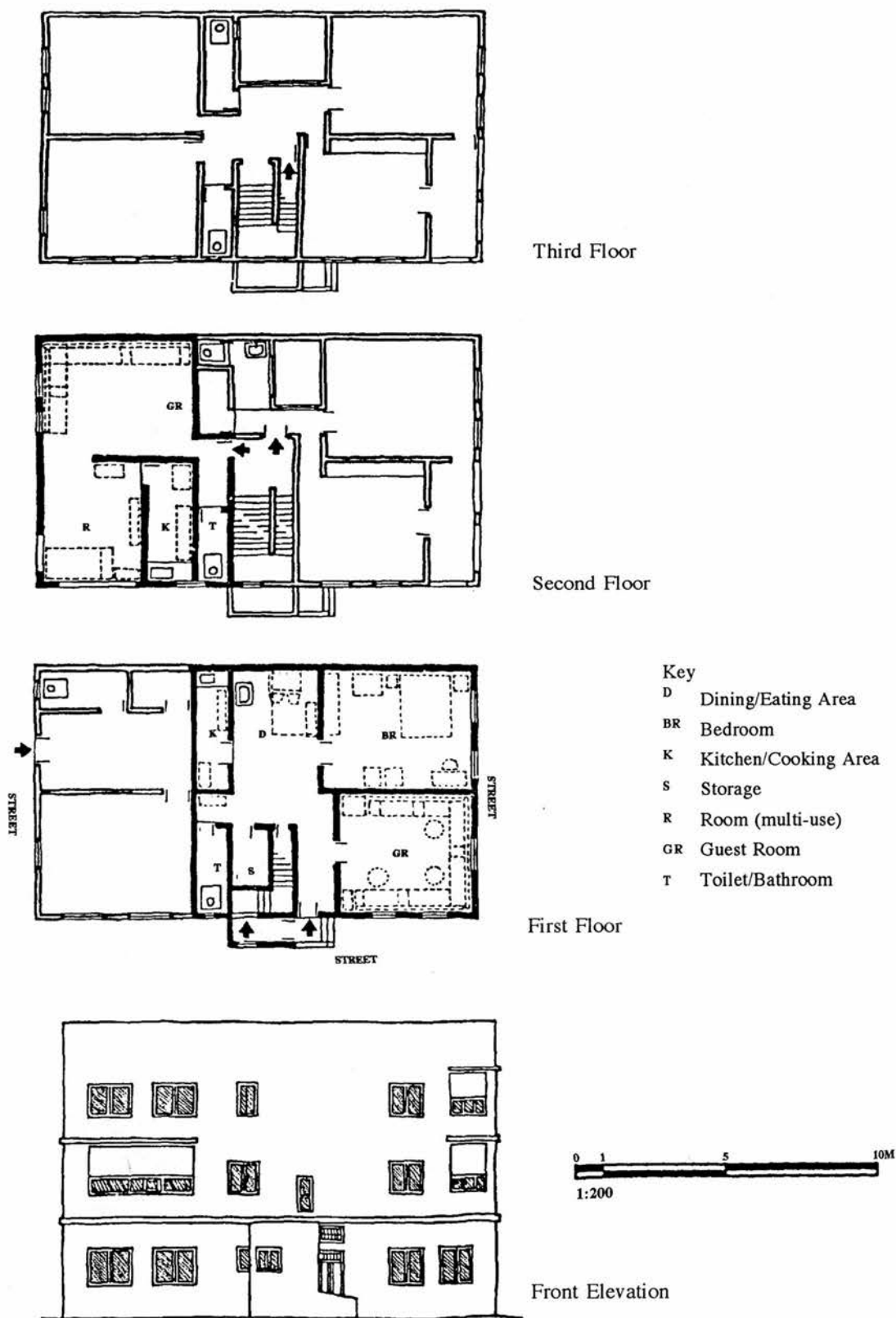


Fig. 9.4 The design of a typical house in Al-Sahaifa, to which Matrix 9.3 is applied.

(Drawings adopted and developed from Fadan, 1977, p. 40.)

that the principle is not violated. But the design of the house does not include spatial arrangements (e. g., setbacks) that are of non-traditional origin. Therefore, the principle appears not to be violated.

The principle *Strong Family Ties* (F1) does not seem to be violated because the dwelling was extended and modified several times to meet the increase in family size of the occupants.

The principles *Balanced Wealth Consumption* (I3) and *Humility outside the House* (H15) appear not to be violated. The house does not include *Functionless Spaces* such as *Setbacks* (factor a6), and its *Balcony* (factor a7) is partially screened. Also the *Roof-top* (factor a7) is surrounded by a high parapet. The rooms are used for multi-purposes (factor a8) and limited in size and number (factors a4 and a9). Other violation factors such as *Exotic Forms and Finishing Materials on Facades* (a2) and *Absence of Micro-Climatic Treatment* (m2) do not feature in the house.

*Site Visual Privacy* (principle H1) is not violated since *Visually Intruded External and Internal Spaces* (factors i3, i4, i5, and i6) are avoided.

The principles *Avoidance of Damaging Neighbouring Housing Rights: Natural Light and Air* and *Safety* (H8 and H9) seem not to be violated due to the absence of *Setbacks* (i3) and neighbours in the ground floor. In other words, if A/C units are exposed to the outside of the dwelling, their dripping water will affect the lower spaces which are also occupied by the same residents of the upper floor.

The principles *Humility* (I2) and *Humility in the House* (H14) are not violated because the dwelling does not feature *Large and Rarely Used Spaces* (factor a4), *Setbacks with Landscape Elements* (a6), and *Exotic Facades* (a2). Also the rooms are used for multi-purposes (factor a8).

*Extended Family* (principle F2) is also not violated in the house which has been extended (factor m1) to meet the increase in family size of inhabitants.

The principle *Plan Acoustical Privacy* (H4) is not violated because the building is inhabited by relatives. It is logical to say that if the apartments are inhabited by unrelated families, the factor *Acoustically Intruded Internal Spaces* (i11) could exist and thus the principle would be violated under these circumstances. This also applies to the principle *Plan Visual Privacy* (H2).

The last principle in the list of Matrix 9.3, *Site Acoustical Privacy* (H3), is not violated by the avoidance of *Visually Intruded Spaces* (factor i11) such as ground floor balconies.

### **9.2.2 Case Study Two: Al-Barakah City, Mecca**

Al-Barakah City is a proposed housing project for middle-income families in the south -west of Mecca. It is located next to the express road which links Mecca with Jeddah and 6 km from the Holy Mosque.

The project includes two types of dwellings: villas and apartments. However, villas dominate; there are 992 of them, compared to only 8 apartment buildings. The villas themselves are of three types: small, medium, and large. The total number of the small villas is 553 villas, each of which occupies 254 m<sup>2</sup> on a lot of 400 m<sup>2</sup>. The medium villas total 102, each one covering 338 m<sup>2</sup> on a lot of 600 m<sup>2</sup>. The total number of large villas is 100, each covering an area of 400 m<sup>2</sup> on a lot of 600 m<sup>2</sup>. On the other hand, the lot size of each apartment building is 600 m<sup>2</sup>. Each of the three villa types has two and a half floors while an apartment building has three.<sup>5</sup>

Each unit whether it is a villa or an apartment is intended to be sold in 10 flexible instalments, which could be paid monthly or annually depending on the income of the buyer. In fact, the developer offers an even more flexible way for payment in order to encourage buying. He proposes that buyers are not required to pay any deposit as long as they can pay the instalments. The suggested prices are generally within the Saudi middle class income range. The corner properties are more expensive than the ones facing one street.



According to its planning, Al-Barakah is served with a network of roads connecting the site with the express road and the surrounding areas. The houses are also to be connected with the city networks of water, sewer, electricity and telephone.

Al-Barakah is provided with all types of facilities, from commercial to cultural or religious. It includes a major shopping centre covering 14000 m<sup>2</sup> with parking spaces of a lot of 15000 m<sup>2</sup>. There are 5 supermarkets distributed throughout the district, each of them occupying a lot of 1500 m<sup>2</sup>. In addition to a main mosque with an area of 4500 m<sup>2</sup>, there are five small mosques, each of which covers an area of 2200 m<sup>2</sup> in different locations. Also there is a primary school for males and another for females. Other facilities such as gas station, police station, municipality building, clinic and post and telephone centre are available. Excessively large green areas or public parks and gardens are also provided in order, as the developer claims, to create a healthy and clean atmosphere.

The district is divided into various neighbourhoods or clusters. According to the developer, the repeating of a typical layout of a neighbourhood throughout the site of Al-Barakah would create social interaction.

In terms of the architectural design of the villas, the spatial arrangement of the three villa types is almost identical. Yet, the only difference is in the number of rooms and utility spaces (i. e. bathrooms and kitchens) which are fewer in the smaller and greater in the larger villas.

A small villa comprises two gardens (front and side) with setbacks on three sides. The gardens are well landscaped with children's playgrounds and planted areas. Apart from the guard house which is separately built in the front garden, the small villa contains 8 rooms. There are 3 rooms on the ground floor, 4 on the first and 1 on the second floor. A kitchen is situated on the ground floor and 4 bathrooms are distributed between the three floors. There is also a terrace or balcony on the ground floor and

another on the first floor. Basically the ground floor is used as a reception area, the first for sleeping and the second for services (i. e. laundry).

The medium villa has two side gardens and a main garden with a swimming pool and other landscape elements in the front. The actual building of the villa is set back on three sides. In addition to a guard house, there are 4 public rooms on the ground floor. Another 4 rooms used for sleeping and other private activities are on the first floor. There is a utility room on the second floor. The villa also includes 2 kitchens, 5 bathrooms and 2 balconies.

The large villa has four setbacks, two of which are gardens with various landscape elements, such as a swimming pool, and a guard house. It contains 10 rooms: 4 on the ground floor for public uses, 5 on the first floor for the family, and 1 on the second floor for services. There are 2 kitchens, 5 bathrooms, and 2 terraces distributed between the ground and first floors.

Each villa is surrounded by an enclosing wall of 2-2.5 m high with two gates. The construction material used in the structure of the villas is basically pre-cast reinforced concrete. Ceramic tiles are applied to the flooring of all villas.<sup>6</sup>

It seems that the eight apartment buildings are not for sale as the developer did not include their design in the prospectus distributed to the public.

Testing Matrices 9.1, 9.2 and 9.4 on Al-Barakah's urban, neighbourhood and house scales (Figures 9.5, 9.6, and 9.7-9.11), respectively is as follows:

#### **a. Urban Scale vs. Matrix 9.1**

The principle *Strong Social Interaction* (S1) appears to be violated by *Long and Wide Streets* (factor p2), *Absence of Macro-Climatic Treatment* (factor p6), *Large Open Spaces and Setbacks* (p3), and *Absence of Hierarchic Traffic Density* (p4), which are typical features of the district. Some areas of the district feature *Large Urban Blocks* (p2), which seem to violate this principle.

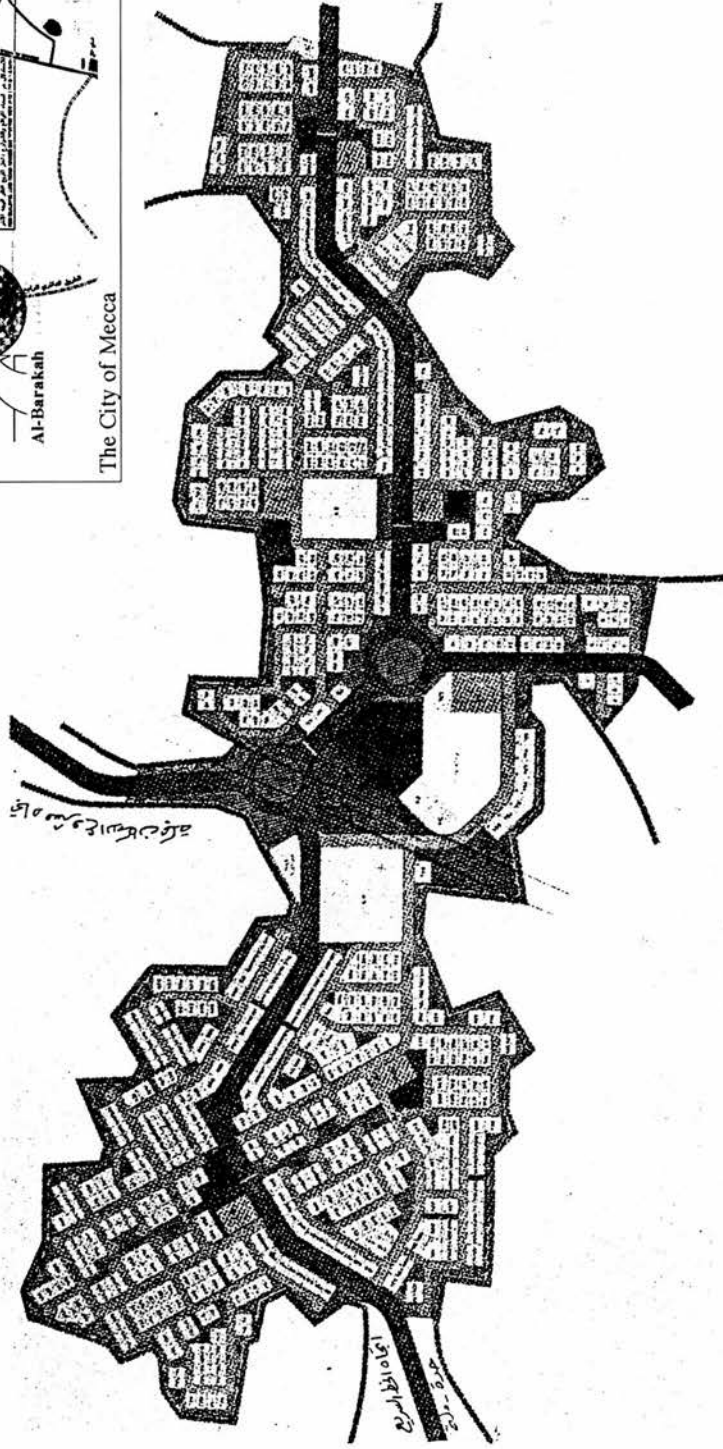
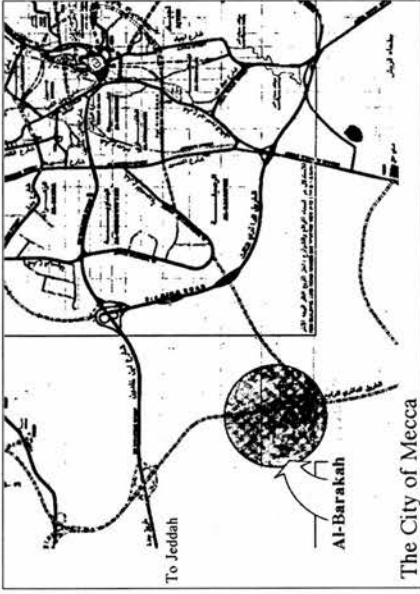


Fig. 9.5 The plan of the urban scale of Al-Barakah, to which Matrix 9.1 is applied.

(Plan adopted and developed from Al-Barakah Co. for Investment and Development, 1985, p. 1 and 8.)

*Social Justice* (principle S2) is violated by three types of villas assigned for three income levels and separated from each other (factor p7).

According to Matrix 9.1, the principle *Enhancement of the Application of Shari'ah* (U3) is violated by *Master plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (p1). Testing this principle by a superficial glance at the master plan of Al-Barakah (Figure 9.5) does not give a definitive result. The plan does not indicate its origin. Of course, it features grid pattern and its houses include setbacks, both of which are non-traditional planning standards. But this principle (U3) is very general and cannot be tested without identifying and analysing the origin of the design concept of every component of Al-Barakah.

Similarly, the principle *Involvement of 'Ulama (Religious Scholars)* (U7) is very general to the extreme that an accurate result cannot be obtained by a visual analysis of the plan.

The principle *Integration of Different Socio-Economic Groups* (U9) seems to be violated by three types of villas allocated for different income groups (factor p7).

*Streets of Functional Widths* (principle U11) is violated by *Long and Wide Streets* (factor p2) and *Absence of Hierarchic Traffic Density* (factor p4), which feature some areas of Al-Barakah.

The principle *Prevention of Harming Public Rights* (U5) seems to be violated by *Absence of Hierarchic Traffic Density* (p4).

The principle *Commercial Necessities Close to Mosques* (L7) does not appear to be violated because most of the mosques are not *disproportionally distributed* (factor p8) in relation to the location of commercial activities. Every commercial centre includes a mosque.

The principle *Strong Relations with Others* (I1) is violated by *Long and Wide Grid-Patterned Streets* (factor p2) featuring many areas. It is also violated by *Absence of Hierarchic Traffic Density* (factor p4), *Large Open Spaces and Setbacks* (factor p3), *Large Urban Blocks* (p5), as well as *Absence of Macro-Climatic Treatment* (factor p6).

In like manner, *Balanced Wealth Consumption* (principle I3) is violated by *Wide Long Grid-Patterned Streets* (p2), *Large Open Spaces and Setbacks* (factor a3), and *Absence of Macro-Climatic Treatment* (p6) that are a characteristic of Al-Barakah's villas.

The principle *Preservation of the Natural Balance* (U2) appears not to be violated due to the absence of *Septic Tanks* (factor m5).

The principle *Equal and Proportional Distribution of Mosques* (U12) is not violated as the factor *Disproportional Distribution of Mosques* (p8) does not feature the district.

*Reflection of the Concept of 'Ummah* (principle U4) is violated by *Large Open Spaces and Setbacks* (factor p3), *Absence of Macro-Climatic Treatment* (factor p6), and *Residential Typology Based on Socio-Economic Levels* (p7).

The principle *Commercial Necessities Accessible to Inhabitants* (L6) is not violated as the district includes various shopping facilities which are almost equally distributed throughout the site.

*Equal and Proportional Distribution of Educational Facilities* (principle U13) is violated by *Disproportional Distribution of Schools* (factor p12) which are limited in number. The district contains only two schools, located at the centre.

The principle *Close or Attached Dwellings* (U10) appears to be violated by *Large Spaces and Setbacks* (factor p3).

## **b. Neighbourhood Scale vs. Matrix 9.2**

The principle *Strong Social Interaction* (S1) is violated by *Absence of Macro-Climatic Treatment* (p6), *Wide Long Grid-Patterned Streets* (p2), *Large Open Spaces and Setbacks* (factor p3) as well as *Absence of Hierarchic Traffic Density* (factor p4).

*Enhancement of the Application of Shari'ah* (principle L1) might be violated. The planning and architectural standards such as *Grid Pattern* and *Setbacks* which are originally non-traditional (factor p1) and characterise Al-Barakah's neighbourhoods justify this violation. Yet, a clear picture cannot be obtained by a superficial look at the plan of the neighbourhood (Figure 9.6). Reviewing other documents, such as the architectural design of the dwellings and their layout, would help in obtaining a more precise guide-line.

The principle *Preservation of Harming Public Rights* (L3) appears to be violated by the *Setbacks* (factor m4) which feature all of the dwellings.

The principle *Strong Neighbourly Relationships* (N1) is violated by *Visually Intruded External Spaces* (i2) such as *Setbacks* (factor i3) and *Balconies* (factor i4).

*Commercial Necessities Close to Mosque* (principle L7) is not violated as almost each neighbourhood is served by a near-by supermarket with a mosque.

*Streets of Functional Widths* (principle L10) is violated by *Long and Wide Grid-Patterned Streets* (factor p2) featuring some neighbourhoods.

The principle *Strong Relations with Others* (I1) is violated by *Large Open Spaces and Setbacks* (factor p3), *Absence of Hierarchic Traffic Density* (factor p4), *Large Urban Blocks* (p5), and *Visually Intruded Spaces* such as *Setbacks* (factor i3) and *Balconies* (factor i4).

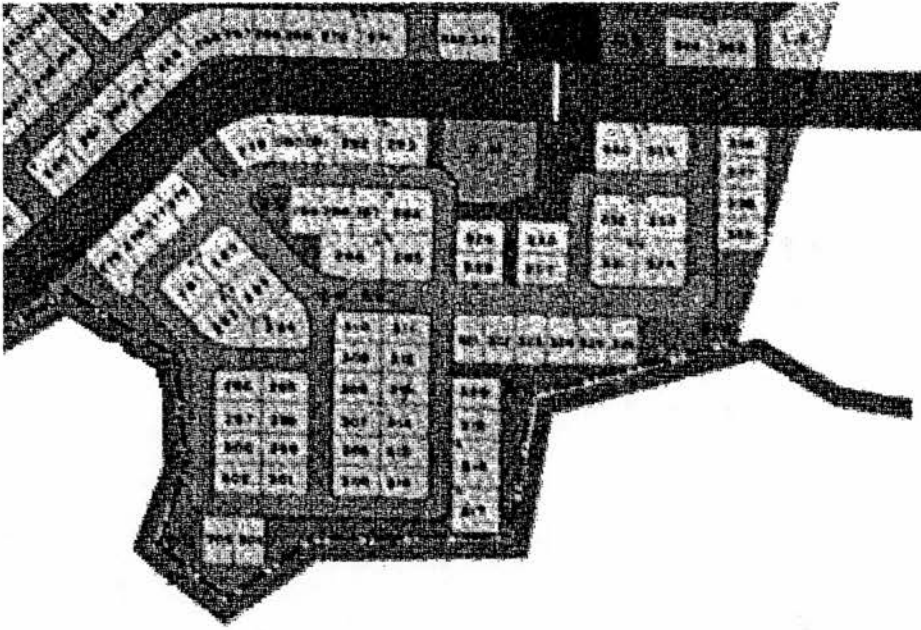


Fig. 9.6 The plan of a typical neighbourhood scale in Al-Barakah, to which Matrix 9.2 is applied.

(Plan adopted from Al-Barakah Co. for Investment and Development, 1985, p. 8.)



The principle *Balanced Wealth Consumption* (I3) seems to be violated by *Wide Long Grid-Patterned Streets* (p2), *Absence of Hierarchic Traffic Density* (P4), and *Large Open Spaces and Setbacks* (p4).

The principle *Consideration of Housing Privacy when Locating Commercial Activities* (L8) cannot be tested only by visual examination of the neighbourhood's plan. Although the violation factor *Shops in Residential Buildings* (p11) is not featured in the neighbourhood, a detailed architectural drawing showing how the shops of the supermarket(s) are open towards the surrounding houses could help in obtaining a definitive result.

The principle *Avoidance of Harming the Public and their Properties* (L15) does not appear to be violated as the neighbourhood's dwellings do not include *Septic Tanks* (factor m5).

*Mosques Accessible by Walking* (L13) appears not to be violated as almost each neighbourhood is provided with a central mosque.

The principle *Avoidance of Benefiting from Public Land for Individual Interests* (L16) is violated by *Setbacks* (factor m4).

Likewise, the principle *Reflection of the Concept of 'Ummah* (L2) seems to be violated by *Absence of Macro-Climatic Treatment* (factor p6) and *Large Open Spaces and Setbacks* (factor p3).

*Outdoor Spatial Hierarchy* (principle L11) also does not appear to be violated by *Absence of Hierarchic Traffic Density* (factor p4).

The principle *Commercial Necessities Accessible to Inhabitants* (L6) is not violated because each neighbourhood is served by a supermarket.

*Making the House a Source of Strong Neighbourliness* (H12) is violated by the *Setbacks* (factor m4) of the dwellings.

The principle *Avoidance of Damaging Neighbouring Housing Rights* (H7) seems to be violated by *Setbacks* (m4) that are featured in the dwellings. These setbacks also violate the principle *Avoidance of Taking Advantage from Neighbours' Property* (H11).

Similarly, the principle *Close or Attached Dwellings* (L9) is violated by *Large Open Spaces and Setbacks* (factor p3) characterising the neighbourhood.

#### **c. House Scale vs. Matrix 9.4**

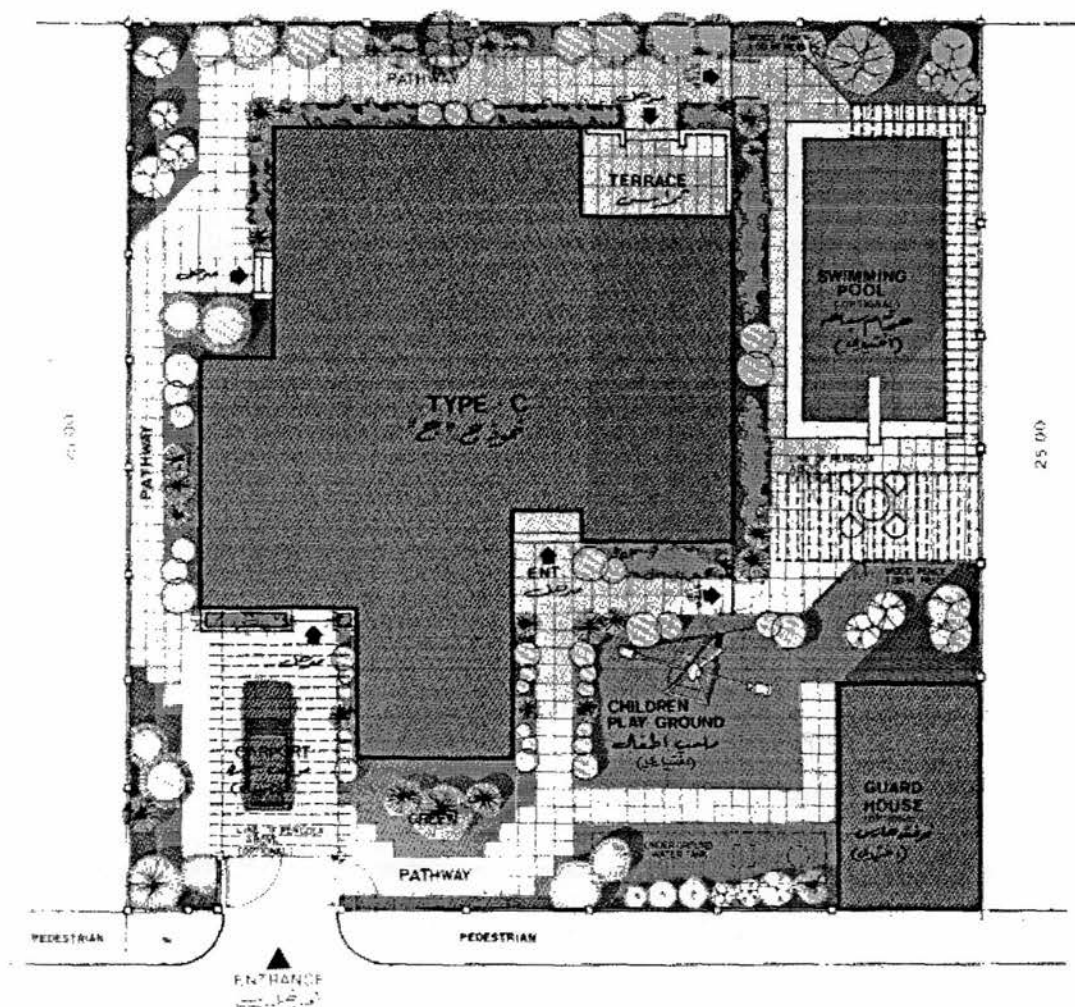
The principle *Enhancement of the Application of Shari'ah* (L1) is too general to be tested by a simple look at the plans (Figure 9.7) of the villa. Thus, no result can be obtained.

*Humility* (principle I2) is violated by *Large and Rarely Used Spaces* (factor a4) that feature the ground floor.

The principle *Balanced Wealth Consumption* (I3) is violated by *Visually Intruded External Spaces* such as *Setbacks* and *Balconies* (factor i3 and i4). It also seems that this principle is to be violated by *Expensive Elements* such as unnecessary landscaping (i.e. swimming pool) (factor a6) and *Functionless Walls, doors and Lobbies* (factor a7). The *Large Number of Separate Rooms* (factor a9) which are designed for specific uses (factor a8) and the *Absence of Micro-Climatic Treatment* (factor m2) also violate the principle. All of these factors appear in the site plan as well as the ground and first floor plans of the villa.

The principle *Site Visual Privacy* (H1) is violated by *Visually Intruded External Spaces* such as *Setbacks* (factor i3), *Balconies* (factor i4), and *Windows* (factor i5) facing each other.

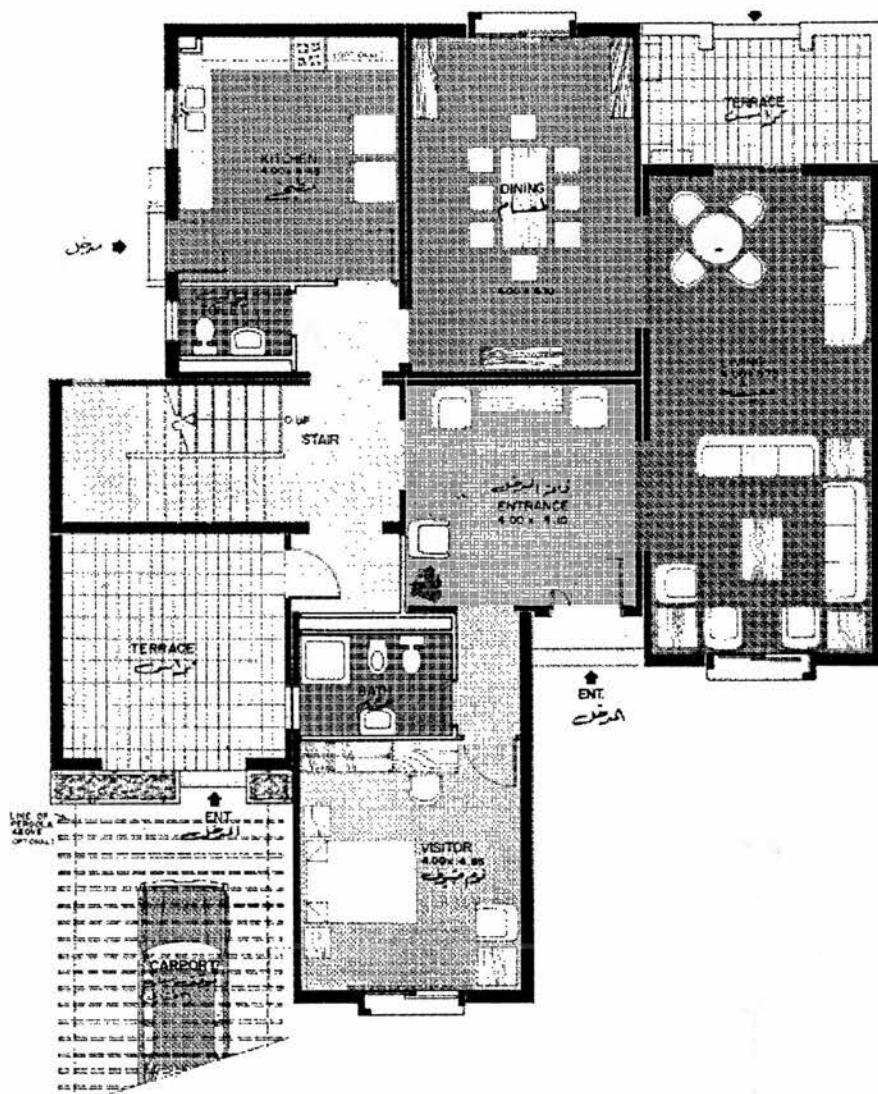
*Avoidance of Damaging Neighbouring Housing Rights: Natural Light and Air and Safety* (principles H8 and H9) appear to be violated by *Visually Intruded External Spaces: Setbacks* (factor i3) and *Absence of Micro-Climatic Treatment* (factor m2).



Site Plan

Fig. 9.7 The architectural design of a typical large villa in Al-Barakah, to which Matrix 9.4 is applied.

(Drawings from Al-Barakah Co. for Investment and Development, 1985, pp. 23-27.)



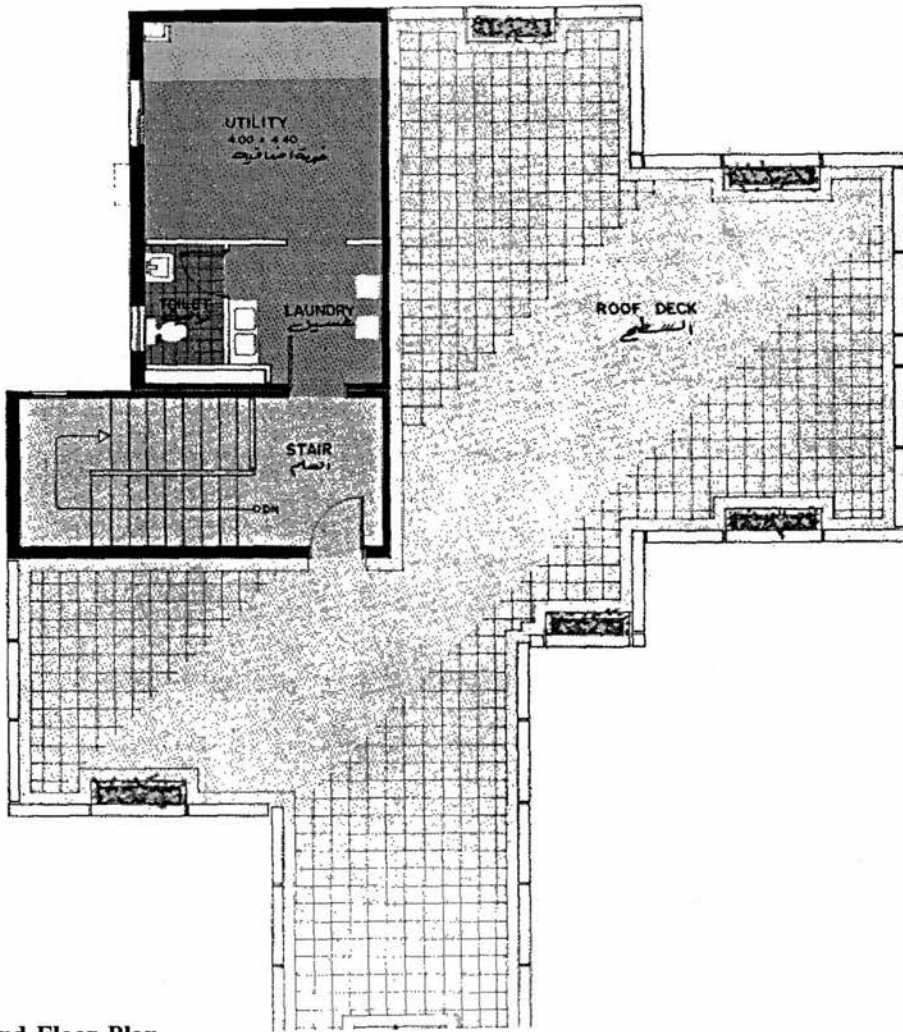
Ground Floor Plan

Fig. 9.7 (cont.)

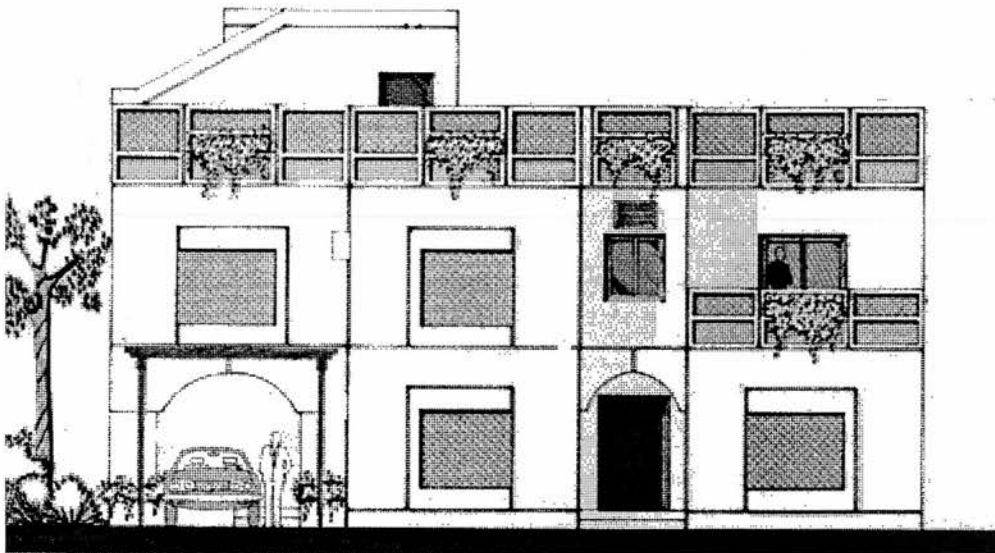


First Floor Plan

Fig. 9.7 (cont.)



**Second Floor Plan**



**Main Elevation**

Fig. 9.7 (cont.)

The principle *Humility inside the House* (H14) is violated by *Large and Rarely Used Spaces* (factor a4) featuring the ground floor. It also seems that the principle is to be violated by the front setback and its expensive landscaping (a6) and *Specific Rooms with Heavy-to-Move Furniture* (a8).

The principle *Strong Family Ties* (F1) is violated by *Large Number of Separate Rooms* (factor a9) which are distributed between the two main floors of the villa.

*Plan Visual Privacy* (H2) appears to be violated by *Spaces Visually Intruded by Guests* (i8) on the ground floor.

The principle *Extended Family* (F2) is violated as the villa's implemented building regulations and design do not allow any future expansion (factor m1).

The principle *Site Acoustical Privacy* (H3) appears not to be violated as the dwellings are separated from each other by side and rear setbacks. However, the principle *Plan Acoustical Privacy* (H4) seems to be violated on the ground floor where some guests and family spaces are open to each other through arches.

### 9.3 THE OUTCOMES OF THE TESTS

As illustrated in Table 9.1, the results of the tests suggest that the first case study (Al-Sahaifa District) is an ideal housing environment for Muslims. The results show that Al-Sahaifa's planning and design characteristics uphold most of the principles at least as far as violations typical of Jeddah's modern housing are concerned. On the contrary, Al-Barakah City is not acceptable as its characteristics of planning and design violate the majority of the traditional principles identified.

Thus, the ability to produce results (even in the form of a table similar to 9.1) after using Matrices 9.1, 9.2, 9.3, and 9.4 for evaluating actual case studies such as Al-Sahaifa and Al-Barakah supports the validity of these matrices and their potential



Table 9.1 The Result of the Test: The violated principles in each case study.

<div>Case</div> <div>Scale</div>	Al-Sehaifah District	Al-Barakah City
Urban	U2	S1 S2 U9 U11 I1 I3 U4 U5 L6 U13 U10
Neighbourhood		S1 L3 N1 L10 I1 H7 L2 L11 L9 N2 I3 L16 H10 H12 H11
House		I2 I3 H2 H9 H14 F1 F2 H1 H8 H15 H4

usefulness as an operational tool for the evaluation of existing and proposed housing environments. However, there were a few principles which could not be tested.

In the first case study of Al-Sahaifa, the test of 50 principles gives the following result:

principles violated = 1

principles not violated = 42

principles which could not be tested = 7

In the second case study of Al-Barakah, the result of the test of 50 principles is as following:

principles violated = 37

principles not violated = 8

principles which could not be tested = 5

1. Testable Principles: The information provided in the plans and drawings at different scales of the evaluated case studies was sufficient to obtain results from the test for 43 out of the 50 principles listed in Matrices 9.1, 9.2 and 9.3 which were used in the evaluation of the apartment housing environment of Al-Sahaifa. In the evaluation of the villa housing environment of Al-Barakah, the testable principles amounted to 45 out of 50 listed in Matrices 9.1, 9.2 and 9.4.

2. Untestable Principles: The tests of these principles could not be made using the available plans and drawings at the different scales of the two case studies without additional detailed information or information of other kinds (e. g., the rules of city planning which had been applied). They are 7 such principles in Matrices 9.1, 9.2 and 9.3, which were used in the evaluation of the apartment housing environment of Al-

Table 9.2 The categories of Principles according to their testing on the two case studies.

Scale	Testable Principle	Untestable Principle
Urban	S1 U11 I1 I3 U2 U12 U4 U13 U10 L6	S2 U3 U7 U9
Neighbourhood	S1 L3 L7 L10 I1 L15 H7 L2 L13 L11 L6 L9 I3 H11 H12 H16 H10	L1 N1 L8 N2

Table 9.2 (cont.)

Scale	Testable Principle	Untestable Principle
House (Apartment)	L1 F1 I3 H2 H8 H12 I2 H14 F2 H3 H4 H1 H9	
House (Villa)	I2 I3 H2 H1 H9 H15 H4 H3 H8 H14 F1 F2	L1

Sahaifa and 5 in Matrices 9.1, 9.2 and 9.4 used in the evaluation of the villa housing environment of Al-Barakah.

In order to assess the significance of the untestable principles, we must understand their nature. According to the test, they could be classified as follows:

a. Principles that are too general to evaluate at a physical scale smaller than a city: These principles, which are *Social Justice* (S2), *Enhancement of the Application of Sharī'ah* (L1 and U3), *Involvement of 'Ulama (Religious Scholars)* (U7), and *Integration of Different Socio-Economic Groups* (U9), cannot give any result just by looking at maps of districts. They are more related to the establishment of the planning policy than design. They can be tested only by evaluating strategic guidelines followed in city planning. In fact, for the case studies of Al-Sahaifa and Al-Barakah, which are parts of the cities of Jeddah and Mecca respectively, we should evaluate the master plans of the entire cities along with documented fundamentals (e. g., city planning and building ordinances) followed in the setting up of these master plans.

The untestability of this type of principle is also related to the nature of the factors violating them. To illustrate this, the matrices demonstrate that most of these principles are commonly violated by *Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (factor p1). This factor is also more relevant to the scale of a city. Hence, testing the validity of any of the general principles by checking a plan of a district, to see if the district includes this factor (p1), is impractical. Instead, the master plan of the city where the district is located should be checked along with other relevant planning documentations.

b. Principles require detailed information of the design of more than one scale to give results: The principles of this category could not be tested due to the lack of sufficiently detailed information in the plans and drawings of the evaluated case studies. This category includes: *Strong Neighbourly Relations* (N1), *Preservation of a Neighbour's Rights* (N2), and *Consideration of Housing Privacy when Locating*

*Commercial Activities* (L8). The test of the first two principles (N1 and N2) requires consideration of the architectural design (i. e. site and floor plans) of each dwelling in the neighbourhood. These principles could not be tested in Al-Sahaifa, where the designs of the houses are different from each other and only one house was evaluated as a typical prototype of the house scale. In like manner, the other principle (L8) could not be tested as the designs of the scales of both Al-Sahaifa and Al-Barakah do not include enough information. In order to arrive at the violation status of this principle, the urban and architectural designs of the commercial buildings of the two case studies would have to be available. This would indicate how the shops open towards houses facing them, and enable a decision to be made as to whether the principle is violated or not.

This need for more detailed information also applies to factors violating some principles. For instance, *Shops in Residential Buildings* (factor p11) could not be found when the principle *Consideration of Housing Privacy when Locating Commercial Activities* (L8) is tested on Al-Barakah. If the information included details of the supermarket openings in relation to the surrounding dwellings, a result could be obtained.

In addition to discovering testable and untestable principles, the test exposed the following issues:

a. The factors included in the matrices are known to be typical violations of principles found in Jeddah's middle-income housing environment. There may be other factors unaccounted for which also cause violation. There may be a weakness in the test in so far that it is derived only from the matrices without taking into account factors beyond their scope. Indeed, it is not the case generally that if the principle "x" is commonly violated by the factor "y", then the absence of "y" does not necessarily imply that there is no violation. This issue is more evident in some principles that are restricted to one common violation factor in the matrices which are found not violated in either of the evaluated case studies. The test of these principles was not flexible enough

to ask whether any of these principle was violated by other factors not included in the matrices. For example, the principle *Making the House a Source of Strong Neighbourliness* (H12) is not violated due to the absence of *Setbacks* (factor m4) in Al-Sahaifa case study. But the absence of *Setbacks* does not mean that this principle is either upheld or not violated. In fact, it can be that factors or physical characteristics (e.g., outdoor spatial arrangements of the neighbourhood) other than *Setbacks* could equally violate this principle. In a second example the principle *Enhancement of the Application of Shari'ah* (principle L1) is not violated in the selected house of Al-Sahaifa as the house was built before modern *Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts* (factor p1) were implemented in Jeddah. Clearly the absence of this factor does not necessarily mean that the application of shari'ah is enhanced. At the house scale of apartment housing environment, the enhancement of the application of shari'ah could be violated for example by the spatial arrangement of the various spaces of the apartment and the orientation of the openings of the apartment in relation to other apartments or dwellings, and vice versa. Similarly, the principle *Avoidance of Harming the public and their Property* (L15) is not violated in the neighbourhood scale of Al-Sahaifa. This result is based on the ground that the common violation factor *Septic Tanks* (m5) does not feature in the houses of the neighbourhood which are served by a sewer network. Yet, the absence of *Septic Tanks* does not automatically mean that no harm is done. Harm to the public and their property can be inflicted upon the neighbourhood in a variety of ways, despite the *Septic Tanks* (m5) factor identified in the matrices as the commonest and greatest cause of violation in Jeddah's modern housing.

Therefore, if they are to be used as a practical tool, the matrices should be developed and continuously updated by adding new violations as they occur and are identified.

b. It might be a weakness in the approach of the test that the case studies were chosen with a deliberate intent to show that example of housing thought to be more ideal for Muslim inhabitants and another which is not. Although the results could have



been guessed before the test was made, the test was not forced or oriented toward the achievement of these results.

c. As another weakness in the tests, the results may suggest that only a traditional Islamic environment or any environment (e. g., Al-Sahaifa) with traditional planning and design characteristics does not violate Islamic principles. This is not necessarily true. Chapter 3 showed a few examples of lawsuits in the traditional Muslim environment, where Islamic principles were unconsciously violated and judges had to intervene to rule out verdicts from sharī'ah. This suggests that the matrices should have reflected a conclusive aim that Islamic principles could be maintained by using available technology and planning and design solutions regardless of their origin or time. In other words, the matrices should indicate that it is not necessary to apply the same physical characteristics of the traditional environment of Muslims in order to preserve Islamic principles particularly the full obligatory.

d. It was not necessary to find all of the factors that generally violate a principle in a particular scale. For example, according to Matrix 9.4, the principle *Humility* (I2) is violated by three factors: *Exotic Forms and Finishing Materials on Main Facade* (a2), *Highly Decorated Exterior Wall and Gate* (a3), and *Large Rarely Used Spaces* (a4). In Al-Barakah, this principle is only violated by one factor, which is "a4".

e. It was helpful sometimes to rely mainly on the violation factors in scanning the violation situation of a principle. For instance, Matrix 9.4 states that the principle *Site Visual Privacy* (H1) is generally violated by *Visually Intruded External Spaces* such as *Setbacks* (i2) and *Balconies* (i3). In testing that principle on the house scale of Al-Barakah, it was more practical to check if the design of a typical villa featured any of these spaces. If these spaces were found in the design, the principle was violated.

f. There were factors that violated some principles but which are not included in the matrices. This appeared in Al-Sahaifa case study, where the principle *Preservation of the Natural Balance* (U2) is violated by a factor (unpaved roads) not listed in Matrix

9.1. This suggests that the matrices as an evaluation tool should not be restricted to the listed factors since unfamiliar factors might be discovered later and added, and that the user of the matrices or tool should switch between principles and factors when evaluating a design. In other words, the user should start with a principle to see if it is maintained or not. If no clear conclusion can be reached, the user should check the relevant factors.

g. The test could not prove that all traditional Islamic social and physical principles are included in the matrices. It has been stated in various places in this thesis that neither the research nor the matrices represent an attempt to make any ijtihād (scholarly religious interpretation resulting in sharī'ah directions). Instead, they are an attempt to illustrate some of the given sharī'ah directions in environmental design terms making their scope as wide and as deep as possible. Although the principles listed in the matrices are founded on what has been specified in the two basic sharī'ah 's sources: Qur'an and sunnah, they are by no means complete. The science of sharī'ah is overwhelmingly wide and deep. Extension of the principles of the matrices would depend on a deeper study of sharī'ah laws by religiously informed scholars.

#### 9.4 PRIMARY DEVELOPMENT OF THE TOOL

Despite their limitations, the matrices show sufficient promise to justify considering how they may be developed as a practical tool. The following are some suggestions for the development and simplification of the matrices to enhance their comprehensiveness and ease of use as a practical tool:

a. The principles S2, L1, U3, U7, L2, and U9, which are too general, should only be used to evaluate the planning of cities.

b. The principles such as N1, N2, and L8, which need more precise information to give results, should be treated with special care. This means that the design of the evaluated scale(s) should include sufficient information.

c. The social changes in Jeddah and the requirements of modern life make it difficult if not impossible for the community to respond to less than full obligatory principles. And full obligatory principles are more fundamental to Muslim housing environment than other principles (i. e. strongly recommended or recommended) of lesser degree of obligation. Therefore, less obligatory principles could be filtered out from the matrices.

d. The low level of violation (i. e. moderate and limited) factors is less dominant than the factors categorised as "high violation". This means that moderate and limited violation factors could be removed from the matrices.

e. There are a few principles of similar or close meanings and can therefore be integrated. These principles are: 1) *Balanced Wealth Consumption* (I3), *Humility* (I2) and *Humility in the House* (H14), and 2) *Strong Social Interaction* (S1) and *Strong Relations with Others* (I1). The first group of these principles could be integrated with principle "I3" and the second with "S1".

Table 9.3 considers all of the above recommendations. It combines the tested Matrices 9.1, 9.2, 9.3 and 9.4 or lists the full obligation principles in relation to factors lead to high violations of them at various scales. It can be used to evaluate a city, a district, a neighbourhood or a housing unit following the same method used in the evaluation of Al-Sahaifa and Al-Barakah. This means that the user should apply the principles and relevant violation factors of the appropriate column to the design of the evaluated scale.

Although Table 9.3 is improved and more practical as an evaluation tool than the earlier matrices, it could be developed further in relation to different users of different circumstances. According to Chapters 7 and 8 or Matrices 9.5-9.8, there are three parties or users responsible for violation factors in middle-income modern housing environment of Jeddah. Each party has a different level of control of factors that highly violate full obligatory principles in each scale. Therefore, the tool or Table 9.3 should

Table 9.3 The Violation of the Traditional Islamic Social and Physical Full Obligatory Principles Caused by High Violation Factors in the Physical Scales of Modern Housing Environment.

Urban Scale		Neighbourhood Scale	House Scale	
City	District		Apartment	Villa
S2/p7	S1/p2	S1/p5	F1/m1	I3/a4
U3/p1	S1/p6	S1/p3	I3/i2	F1/a9
U7/p1	S1/p3	U5/m3	I3/i3	I3/a2
U9/p7	S1/p5	N1/i3	I3/a7	I3/i2
	U11/p2	L7/p8	I3/a2	I3/i3
	L7/p8	L10/p2	I3/m2	I3/a3
	I3/a6		H2/i2	I3/m2
			H2/i7	H2/i2
			H2/i8	H8/m5
			H8/m5	H8/i3
			H12/m5	I3/a5

be developed to consider this variety of control and the associated circumstances of each party. Such a refinement, which is particularly aimed at matching the precise needs of different users, would strengthen the practicality and effectiveness of the tool.

The following discusses these parties and how the tool could be developed to suit their role for controlling the housing environment of Jeddah.

Regulatory Authority. This party is responsible for violation factors in most physical scales. But, through its housing regulations and policy, it has more control on violation factors of two scales: urban and neighbourhood (Table 9.4). This fact is supported not only by the analysis of Chapter 8, but also by the reality that no party can modify or create any physical element or design beyond the physical boundary of the house other than this authority. This is regardless of the fact that this authority employs and allows private consultants to set up master plans and design privately owned neighbourhoods. Yet, whatever these consultants design should meet the authority's rules.




























Hence, there is a need to modify and develop the tool of Table 9.3 to match the authority's role in the housing environment. In order to do so, the tool should be limited to two scales: urban and neighbourhood. This means that the resulting tool should consist of two sub-tools, each of which is to use for the evaluation of either of the two scales.

The urban scale sub-tool could be used by the Municipality of Jeddah, which represents the regulatory authority, to check the maintenance of urban principles and avoidance of related factors in a city or district. It could also be used as a reference in city planning and housing policy making.

























Likewise, the neighbourhood sub-tool could be used by the municipality to evaluate the preservation of relevant principles and avoidance of violation factors in a present or proposed design of neighbourhood.

The Level of Responsibility of Parties Responsible for Factors Highly Violate Full Obligatory Principles in the Different Physical Scales and their Degree of Responsibility.


































Matrix 9.5 Urban Scale

			Factor
			p2
			p1
			p6
			p3
			p5
			p7
			p8
			a6


































Matrix 9.6 Neighbourhood Scale

			Factor
			p3
			p5
			i2
			p1
			p2
			p8
			m3




Matrix 9.7 House Scale: Apartment





			Factor
			m2
			i2
			p1
			i7
			i3
			i8
			a2
			m1
			a7
			m5

Matrix 9.8 House Scale: Villa

			Factor
			a2
			a4
			i2
			p1
			i3
			m2
			m1
			a5
			m5
			a9

Key:

 Inhabitants/Owners  
 Design Practitioners  
 Regulatory Authority

 High Responsibility  
 Moderate Responsibility  
 Limited Responsibility  
 No Responsibility

Full Obligatory Principles Highly Violated in the Physical Scales and Controlled by each Party.

Table 9.4 Regulatory Authority

Urban	Neighbourhood
S1	S1
S2	N1
I3	L1
U3	L3
U7	L7
U9	L10
U11	
L7	

Table 9.5 Practitioners

Apartment	Villa
I3	I3
H2	H2
F1	H8
H8	F1
H12	

Table 9.6 Owners and Inhabitants

Apartment	Villa
I3	I3
H2	H2
H8	
H12	



It is the trend nowadays that private developers invest in large properties. Each property is subdivided as a neighbourhood by a private architectural or planning firm according to municipal restrictions. The subdivided lands are sold to individuals to build their own dwellings. Official procedures of owning and developing these properties involve the municipality and a local court as well. The municipality provides the regulations of land use and requires the investor to produce a plan of the neighbourhood before permitting the selling of the subdivisions. Meanwhile, the court's involvement is to legalise the ownership of the entire property and the selling of the subdivisions to individuals. It does not allow the investor to sell the subdivisions before presenting the plan which is approved by the municipality.

Therefore, the neighbourhood sub-tool would be of a benefit to both, the municipality and courts.

Practitioners. In Jeddah, architectural design of middle-income housing is usually produced by a wide range of professionally qualified and unqualified practitioners. A designer there can be a civil engineer, a draftsman, or even a surveyor. This fact should be considered in the tool's development. In other words, the evolved tool developed for practitioners' use should not be limited to designers of an architectural education. Nor should it aim to restrict the designer's imagination or to produce ugly architecture. As long as the principles which are included in that tool are met and violation factors are avoided, the designer is free to create ideas without limitation.

Also developing the tool for practitioners should consider the variation of violated principles and violation factors in housing types. This suggests that the tool might be divided into two sections or sub-tools, each of which evaluates the house scale of a villa or an apartment dwelling.

The practitioners' tool could be distributed to users through agencies who directly or indirectly deal with dwelling design approval, architectural practice licensing and dwelling ownership registration, funding and construction. They are: the Municipality

of Jeddah, the Real Estate Development Fund, the Engineering Committee of Jeddah's Commercial Chamber, local courts, and the Ministry of Public Works and Housing.

In sum, the improvement of the tool for practitioners should focus on three approaches:

- before and during the design process as a guide to consider principles and avoid factors;
- after the design as a mean of evaluation or criticism, in this case the designer is required to modify the design if it includes any violation factor or a principle is ignored; and,
- evaluation of an existing dwelling.

Owners and Inhabitants. The tool could be developed into an educational or explanatory instrument the designer includes in the design drawings to inform owners and support the design.

Orienting the tool toward owners or inhabitants should concentrate on a particular type of factors. These factors are the ones which designers should eliminate in a dwelling design but are difficult for owners to relinquish due to social changes. They are difficult, since these violation factors, such as exotic forms, result from new social morals and desires (i. e. self advocating, etc.) Regrettably, these morals have become socially acceptable and represent a major challenge to designers who may have no choice but to reflect them in the design.

On the other hand, there is no way of convincing middle-income Saudis that these morals, especially when they are imposed upon dwelling design, contradict Islamic teachings without revealing the opinion of Qur'an and sunnah on such morals. Therefore, in considering this fact, the emergent tool should first specify the principles that could be addressed by avoiding violation factors controlled by owners. Then it should include Qur'anic verses and prophetic hadith which declare the obligation rule

of a relevant principle or the punishment of its violation. Principles such as privacy might not be included since society still believes in them and designers are obliged (by owners) to maintain them. Also the tool should address the varying accommodation circumstances of inhabitants of each housing type. There are two forms of housing (apartment and villa) with a difference in the residential status of inhabitants as renters or owners.

The owners' tool or table could be included in the architectural drawings (i. e. site plan, floor plans and main elevation) of an apartment or villa design. Since it contains Qura'nic verses and prophetic hadith, the table must be included in the drawings that will be approved by the municipality. This means that the copy of the drawings used in the site, construction or by labourers should not include that table. According to Islamic rules, Qura'nic verses or any document contains Allah's holy names should be kept in immaculate conditions. The nature of construction sites does not provide these conditions.

As stated earlier, the development of the tool to match owners' circumstances is mainly to recall relevant Islamic principles. It should not be viewed as an invitation to owners to re-believe in these principles. Middle-income Saudis are still conservative regardless of social changes. Undoubtedly, the tool's Qur'anic verses and hadiths will be convincing and able to remind them of the principles. Also the aim of the tool should not be seen as an aim to change personal behaviours of owners (which is an impossible task.) People could violate a principle in many ways other than housing. Instead, the tool development should concern itself with the design of the house.

## **9.5 ADVANCED DEVELOPMENT OF THE TOOL**

As well as the suggestions for the development of the matrices already proposed, further development is needed. This should proceed beyond the matrices by extending their principles on the basis of more study of shari'ah sources. Such a study should be carried out by religiously informed scholars with the assistance and participation of

planners, designers and decision-makers of relevant authorities. Equally important, the study should search for and add more violation factors which might not be identified by the matrices as they stand.

## 9.6 SUMMARY AND CONCLUSION

Matrices 9.1-9.4 were tested to see if they appear to be valid. The test was against three scales in two case studies of actual housing areas: Al-Sahaifa District in Jeddah and Al-Barakah City in Mecca. The outcome of the test supported the general validity of the matrices but identified some weaknesses. As explored in the test, some of the principles could be violated by other factors not included because they have not been identified as typically leading to violations in Jeddah's modern housing environments for middle-income families. Moreover, the number of principles of the matrices cannot be considered as complete. Their completeness requires a deeper study of relevant shari'ah laws or Fiq al-Benaa by religiously informed scholars. This means that the matrices should be dynamic and continuously updated by additional principles and factors.

As an attempt to develop the matrices into a practical tool, Table 9.3 represents a simplification of the matrices by omitting less important principles and violation factors. However, the table lacks consideration of the three parties with different circumstances, which are important to its practicality as a tool. The end of the chapter discusses these parties and how their role in Jeddah's modern environment could effect and necessitate further development of the tool. Based on this discussion, various recommendations were made for it to meet the needs of the parties. Considering their needs is not alone enough for the full development and refinement of the tool. Its further testing and use on a wide range of examples for the evaluation of existing housing design schemes is required as well as the need for its trial application in the design process.

CHAPTER **10**—

## SUMMARY AND CONCLUSION

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This study has set out to investigate the violation of traditional Islamic principles in Jeddah's modern housing. It has looked mainly at the violation of the principles in the two dominant types of housing for middle income Saudis: apartments and villas. The hypothesis was that these types, which are well accepted by society for many reasons, incorporate design and planning factors or other characteristics that violate traditional principles.

In testing the hypothesis, the research contained two major components. The first was an identification and discussion of the principles that sharī'ah, the Islamic legal system, has established from its sources such as the Qur'an and sunnah. These principles are of two kinds: social and physical. Each principle was discussed in relation to the social meaning and value stressed by Islam. An examination was then conducted of the violation of these principles at different scales in apartment and villa housing by exploring their design and planning characteristics and relevant consequences. The findings supported the hypothesis and showed how each characteristic violated one or more principles of the tradition of Islam.

A brief review was also offered of the sources of Islamic sharī'ah and their various levels of legality. Likewise, consideration was given to points of view of Islam with regard to ideological and technological developments or the notion of "modernity". It was also necessary to explore the contemporary forces behind the creation and dominance of the new housing forms. These forces, the majority of which were outcomes of the Saudi modernisation process, varied from economic to socio-cultural.

A detailed evaluation of the degree of violation of principles was presented in tables and matrices relating principles and violation factors to show the degree of obligation of each principle and the degree of its violation at different scales - urban, neighbourhood and house. This analysis was then extended to provide the basis of a standard working tool for evaluating existing and proposed dwelling environments in terms of their response to Islamic principles and the avoidance of violations. The validity of the tool was tested in two case studies of housing in Jeddah and Mecca. The results of the tests supported the general utility of the tool but showed in a number of ways in which it was vital for practical purposes to develop it further.

In particular, a more comprehensive study of sharī'ah and its principles concerning the dwelling environment is needed in order to establish a sound basis for formulating more principles that have not been identified in this research. This should be carried out by religiously informed scholars with the participation of planning and design academics, professionals and policy-makers.

The thesis has presented a way of understanding the social meaning and value of the traditional principles of Islam and has also shown how they are being violated in major parts of the contemporary housing environment. It is hoped that the research will contribute towards filling the gap in the understanding of the modern dwelling environment of Muslims. There have been suggestions by earlier research that this environment may indeed violate certain aspects of Islamic teachings, but these have been uncoordinated and have not matched the violations with corresponding principles to any degree of precision. But more importantly, it is hoped that the study will create an awareness of the extent of violation in the tradition of Islam by modern planning and design solutions and of the need to find proper alternatives that not only remove these violations but also support the principles of the Islamic tradition.

As is the case in any research work, the study is by no means complete. The author does not claim that he has presented all the dimensions and depths of the discussion relating to each issue: this would be impossible in a study of modest size and scale. An



attempt has, however, been made to show the seriousness of the dilemma contained in the violation of Islamic tradition in the design and planning of modern housing in Saudi Arabia.

Further work is needed on Islamic views of the issue of "modernity", however, this study has been able to treat this matter only briefly. Investigations are also needed of hypothetical planning and design typologies that would maintain the traditional requirements such as social interaction and privacy, while equally satisfying the needs of the modern life of Muslims. Further research is also required into the psychological aspects of the different physical scales of modern Muslim housing to understand how people might be brought closer together and their communal behaviour be affected positively.

In addition to academic research, the existing planning and building regulations in Jeddah need to be re-evaluated in the light of shari'ah teachings by the municipal authority. Regardless of the social changes in Jeddah, Islamic social principles are still very much alive and are deeply embedded within the psyche of the people. Re-evaluating planning and building regulations in accordance with Islamic principles would create an environment which would gradually draw out people's Islamic beliefs, and make them manifest in practice. The authority should be staffed with individuals with a shari'ah legal background who could examine dwelling designs, advise developers and designers, and, in general, put into effect policies concerning the application of traditional social and physical principles of Islam in the housing environment. The authority could learn from the design and planning of the traditional housing environment of early Muslims, from which a great deal remains to be learned. It is most essential to understand properly the essence and social significance of the traditional environment in order to extract its principles which could serve as a ground for the development of a new approach to plan and design an environment that responds to Islamic requirements.

## NOTES AND REFERENCES

## NOTES AND REFERENCES

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#### CHAPTER 4

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## **CHAPTER 5**

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## APPENDICES

## APPENDIX A

### CODE KEY TABLES

Table A.1 The Traditional Principles of the Islamic Social Framework.

Principle	Social Scale	Code	Section
Strong Social Interaction	Society	S1	2.1.1
Social Justice		S2	2.1.2
Strong Neighbourly Relationships	Neighbourhood	N1	2.2.1
Preservation of a Neighbour's Rights		N2	2.2.2
Strong Family Ties	Family	F1	2.3.1
Extended Family		F2	2.3.2
Strong and Kindly Relationships with Others	Individual	I1	2.4.1
Humility		I2	2.4.2
Balanced Wealth Consumption		I3	2.4.3

Code Key: S: society

N: neighbourhood

F: family

I: individual

*Tables in text (p. 264 ff)  
referred to as Table 8.1, 2...*

Table A.2 The Traditional Principles of the Islamic Physical Framework.

Principle	Physical Scale	Code	Section
Utilization of Natural Resources	Urban	U1	3.1.1
Preservation of the Natural Balance		U2	3.1.2
Enhancement of the Application of <u>Shari'ah</u>		U3	3.2.1.1.1
Reflection of the Concept of <u>'Ummah</u>		U4	3.2.1.1.2
Prevention of Harming Public Rights		U5	3.2.1.1.3
Involvement of the Official Civil Authority		U6	3.2.1.2.1
Involvement of <u>'Ulama</u> (Religious Scholars)		U7	3.2.1.2.2
Involvement of Society		U8	3.2.1.2.3
Integration of Different Socio-Economic Groups		U9	3.2.2.1
Close or Attached Dwellings		U10	3.2.2.2.1
Streets of Functional Width		U11	3.2.2.2.2
Equal and Proportional Distribution of Mosques		U12	3.2.2.2.3.1
Equal and Proportional Distribution of Educational Facilities		U13	3.2.2.2.4.1
Far Location of Industries		U14	3.2.2.2.5.1
Enhancement of the Application of <u>Shari'ah</u>	Neighbourhood	L1	3.2.1.1.1
Reflection of the Concept of <u>'Ummah</u>		L2	3.2.1.1.2
Prevention of Harming Public Rights		L3	3.2.1.1.3
Involvement of Society		L4	3.2.1.2.3
Integration of Different Socio-Economic Groups		L5	3.2.2.1
Commercial Necessities Accessible to Inhabitants		L6	3.2.2.2.1.1
Commercial Necessities Close to Mosque		L7	3.2.2.2.1.2
Consideration of Housing Privacy when Locating Commercial Activities		L8	3.2.2.2.1.3
Close or Attached Dwellings		L9	3.2.2.2.2.1

Code Key: U: urban L: local or neighbourhood H: house

Table A.2 (cont.)

Principle	Physical Scale	Code	Section
Streets of Functional Width	Neighbourhood (cont.)	L10	3.2.2.2.2
Outdoor Spatial Hierarchy		L11	3.2.2.2.3
Equal and Proportional Distribution of Mosques		L12	3.2.2.3.1
Mosques Accessible by Walking		L13	3.2.2.3.2
Equal and Proportional Distribution of Educational Facilities		L14	3.2.2.4.1
Avoidance of Harming Public and their Property		L15	3.3.2.1.1
Avoidance of Benefiting from Public Land for Individual Interest		L16	3.3.2.1.2
Site Visual Privacy	House	H1	3.3.1.1.1
Plan Visual Privacy		H2	3.3.1.1.2
Site Acoustical Privacy		H3	3.3.1.2.1
Plan Acoustical Privacy		H4	3.3.1.2.2
Avoidance of Harming Public and their Property		H5	3.3.2.1.1
Avoidance of Benefiting from Public Land for Individual Interest		H6	3.3.2.1.2
Avoidance of Damaging Neighbouring Housing Rights		H7	3.3.2.2.1
Natural Light and Air		H8	3.3.2.2.1.1
Safety and Quietness		H9	3.3.2.2.1.2
Adjacent Public Space		H10	3.3.2.2.1.3
Avoidance of Taking Advantage from Neighbours' Property		H11	3.3.2.2.2
Making the House a Source of Strong Neighbourliness		H12	3.3.2.2.3
Humility in the House: Avoidance of Self-Advocating		H13	3.3.3
Inside the House		H14	3.3.3.1
Outside the House		H15	3.3.3.2

Code Key: U: urban L: local or neighbourhood H: house



Table A.3 Factors Responsible for the Violation of the Traditional Principles of the Islamic Social and Physical Frameworks.

Factor	Code	Section
Master Plans and Building Regulations Originated in and Imported from Non-Traditional Contexts	p1	7.1.1
Long and Wide Grid-Patterned Streets	p2	7.1.2.1
Large Open Spaces and Setbacks	p3	7.1.2.2
Absence of Hierarchic Traffic Density	p4	7.1.2.3
Large Urban Blocks	p5	7.1.2.4
Absence of Macro-Climatic Treatment	p6	7.1.3
Residential Typology and Zoning Based on Socio-Economic Levels	p7	7.1.4.1
Disproportional Distribution of Mosques	p8	7.1.5.1.1
Irrelevant Locational Relationship between Mosques and Shops	p9	7.1.5.1.2
Disproportional Distribution of Shopping Necessities	p10	7.1.5.2.1
Shops in Residential Buildings	p11	7.1.5.2.2
Disproportional Distribution of Schools	p12	7.1.5.3.1
Visually Intruded Spaces	i1	7.2.1
External	i2	7.2.1.1
Setback	i3	7.2.1.1.1
Balcony	i4	7.2.1.1.2
Windows	i5	7.2.1.1.3
Rooftop and Height Variation	i6	7.2.1.2
Internal	i7	7.2.1.2.1
Spaces Visually Intruded by Guests	i8	7.2.1.2.2
Spaces Visually Intruded by Neighbours	i9	7.2.1.2.3
Spaces Visually Intruded by Inhabitants: Visually Exposed Circulation between Bedrooms and Bathrooms	i10	7.2.2

Code Key: p: planning i: intrusion a: ambitions m: miscellanies

Table A.3 (cont.)

Factor	Code	Section
Expensive Elements	a1	7.2.3
Exotic Forms and Finishing Materials on Main Facade	a2	7.2.3.1
Highly Decorated Exterior Wall and Gate	a3	7.2.3.2
Large and Rarely Used Indoor Spaces	a4	7.2.3.3
Functionless Spaces and Elements	a5	7.2.4
Setbacks and their Landscape Elements	a6	7.2.4.1
Balconies, Roofs, and Indoor Elements	a7	7.2.4.2
Specific Rooms with Heavy-to-Move Furniture	a8	7.2.4.3
Large Number of Separate Rooms	a9	7.2.5
Limited Dwelling Expansion	m1	7.2.6
Absence of Micro-Climatic Treatment	m2	7.2.7
Other Issues Concerning Ownership and Right Damages	m3	7.2.8
Setbacks	m4	7.2.8.1
Septic Tanks	m5	7.2.8.2

Code Key:    p: planning       i: intrusion       a: ambitions       m: miscellanies

## APPENDIX B

Below is the permission offered by the municipality to take photographs in the northern districts of Jeddah in 1991.



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

المملكة العربية السعودية  
وزارة الشؤون البلدية والقروية  
أمانة مدينة جدة  
بلدية المطار الفرعية

الى من يهمه الامر

=====

تفيد بلدية المطار ان المهندس/ هشام مرتضى أحد منسوبي الامانة يقوم بالتصوير  
الفوتوغرافي لبعض المباني السكنية في الاحياء التابعة للفرع وذلك كجزء  
من دراسته للدكتوراه في العمارة ببريطانيا .  
نرجو عدم اعتراضه وتسهيل مهمته .



الموضوع:

المرافقات:

التاريخ: / /

الرقم:

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